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## SEQUENCE LISTING

<110> diaDexus, Inc.  
Macina, Roberto  
Turner, Leah  
Sun, Yongming

<120> Compositions, Splice Variants and Methods Relating to Colon  
Specific Genes and Proteins

<130> DEX-0448

<150> US 60/431,132  
<151> 2002-12-04

<150> US 60/431,144  
<151> 2002-12-04

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<170> PatentIn version 3.1

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11

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aagtggccaa aagcctagac agataccccg gttcnctgac avtacacagc agcctccaac 1200
acaaggctcc aaagkaccta gggctcatgg acgagkatgg gaaggcacag ggagaaggga 1260
taaccctaca cckagacccc caggctggac atgctgactg tcctctcccc tccagccttt 1320
ggccttggt tttctagcct atttacmtgc aggctgagcc actcwyrctt cctttcccca 1380
gccatcactc cccgaggaag agccaat 1407

```

&lt;210&gt; 12

&lt;211&gt; 673

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 12

```

ggtcgcactg gtgatgcggt ctgttgctcc cgggcctcct ggactcctgg tccskggtc 60
tcccagcgct ggtttcgact tcagcttctt gcccagcca cctcaagaga aggctcacga 120
tggtggccgc tactaccggg ctgatgatgc caatgtggtt cgtgaccgtg acctcgagg 180
ggacaccacc ctcaagagcc tgagccagca gatcgagaac atccggagcc cagagggcag 240
ccgcaagaac cccgcccga cctgccgtga cctcaagatg tgccactctg actggatgag 300
tggcgagtag tggattgatc ccaaactaag gctgcaggct ggatgccatc ctattcggtg 360
catgcgatca atggagactg gtgagacgct gcgtgtaccc cactcagcgt cagtgtggcg 420

```

12

```

ccagaagaac tggtagatca gcaagaaccc caaggacaag aggcattgtct ggttcggcga      480
gagcatgacc gatggattcc agttcgagta tggcggccag ggctccgacc ctgccgatgt      540
ggccatccag ctgaccttcc tgcgcctgat gtccascgag gccttccaga acatcaccta      600
ccactgtaag aacagtgtgg cctacatgga ccaccagact ggcaacctta agaaggccct      660
gctcctccag ggc                                              673

```

```

<210> 13
<211> 382
<212> DNA
<213> Homo sapien

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<400> 13
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ttgtgcctat caggactttt tgcaatattg cgctctgtcg gctttccaat cttcagggat      120
atcatcgagc tagaccattc cctactatgg atttattttt tttcctttca aacacagtaa      180
ggaaacaatc tattactttt ttccttaaaa ggagaattta tagcactgta atacagctww      240
aaaatatttt tagaatgatg taaatagtta accttcagta gtctattaag gcattaatac      300
ttctctgaca tgcgcgtttg aggggtggagg ggtcctgaag gtgcttcacg gtctgtgatt      360
actgcttggg atgtgttctt tg                                              382

```

```

<210> 14
<211> 911
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (911)..(911)
<223> n=a, c, g or t

```

```

<400> 14
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ttctgtcttc ggaccttcc caacaatctc gtaaaacatg gtggattact atgaagttct      180
aggcgtgcag agacatgcgc tctaccgag ggatattaca aaaggcatat cgggaaactg      240
gcactgaagt ggcattccaga taaaaatcct gagaataaag aagaagcagc agcagaaaat      300
tcaagcaagt agcggaggca tatgaagtgc tgcggatgc taagaaacgg gacatctatg      360
acaaatatgg caamagaagg attaaatggg ggaggacgga ggtggaagtc attttgacag      420
tccatttgaa tttggcttca cattccgtaa cccagatgat gtcttcaggg aattttttag      480
gtggaaggga cccattttca tttgacttct ttgaagacct ttttgaggac ttctttggga      540

```



13

```

atcgaagggg tccccgagga agcagaagcc gagggacggg gtcgttttak tctgcgttca 600
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ggtcactggg tcacgggggc ctcactctat tctcttccac gtcatttggg ggtagtggca 720
tgggcaacta taaatcgata tcaacttcca ctaaattggg taatggcaga ccaatcacta 780
caaagagaat tgttgataac agtcaagaca gagtacaagt tgaagatgat ggccagttaa 840
agttcttaac tattggttat gagcagctgc tgtgcttgga taacaagtga ttcaacgcac 900
gcgcttagct n 911

```

```

<210> 15
<211> 431
<212> DNA
<213> Homo sapien

```

```

<400> 15
ttaagakcgc kacgggcgct ttcctttcag cggagcgcgg cggcaagatg gcagtgcaaa 60
tatccaagaa gaggaagttt gtcgctgatg gcatcttcaa agctgaactg aatgagtttc 120
ttactcggga gctggctgaa gatggctact ctggagtga ggtgcgagtt acaccaacca 180
ggacagaaat cattatctta gccaccagaa cacagaatgt tcttggtgag aagggccggc 240
ggattcggga actgactgct gtagttcaga agaggtttgg ctttccagag ggcaagttag 300
agctttatgc tgaaaagggtg gccactagag gtctgtgtgc catttsccca gcagagyty 360
tgcsgtacma actcyaggas ggctcgctgc gccgcgtctt tcctatcgct gtccgcacg 420
cccatggggc c 431

```

```

<210> 16
<211> 1047
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (7)..(7)
<223> n=a, c, g or t

```

```

<220>
<221> misc_feature
<222> (64)..(64)
<223> n=a, c, g or t

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```

<220>
<221> misc_feature
<222> (66)..(66)
<223> n=a, c, g or t

```

<220>  
 <221> misc\_feature  
 <222> (71)..(71)  
 <223> n=a, c, g or t

<220>  
 <221> misc\_feature  
 <222> (73)..(73)  
 <223> n=a, c, g or t

<220>  
 <221> misc\_feature  
 <222> (80)..(80)  
 <223> n=a, c, g or t

<220>  
 <221> misc\_feature  
 <222> (95)..(95)  
 <223> n=a, c, g or t

<220>  
 <221> misc\_feature  
 <222> (110)..(110)  
 <223> n=a, c, g or t

<220>  
 <221> misc\_feature  
 <222> (136)..(136)  
 <223> n=a, c, g or t

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 accgcctttg agttgnacac agatggcaac ccctttgacc aggacatcta cgggcgcgag 180  
 ggaggcgcag cccaagctg ttctacgccg accaccctt catcttccta gtgcgggaca 240  
 cccaaagcgg ctccctgcta ttcatgggc gcctgggtccg gcctaagggt gacaagatgc 300  
 gagacgagtt atagggcctc aggggtgcaca caggatggca ggaggcatcc aaaggctcct 360  
 gagacacatg ggtgctattg gggttggggg ggaggtgagg taccagcctt ggatactcca 420  
 tgggggtgggg gtggaaaaac agaccggggt tcccgtgtgc ctgagcggac cttcccagct 480  
 agaattcact ccacttgac atgggccccca gataccatga tgctgagccc ggaaactcca 540  
 catcctgtgg gacctgggcc atagtcattc tgctgcctt gaaagtccca gatcaagcct 600  
 gcctcaatca gtattcatat ttatagccag gtaccttctc acctgtgaga ccaaattgag 660  
 ctaggggggt cagccagccc tcttctgaca ctaaaacacc tcagctgcct cccagctct 720

15

```

atcccaacct ctcccaacta taaaactagg tgctgcagcc cctgggacca ggcaccccca 780
gaatgacctg gccgcagtga ggcggattga gaaggagctc ccaggagggg cttctgggma 840
gactctggtc aagaagcatc gtgtctggcg ttgtggggat gaactttttg ttttgtttct 900
tcctttttta gttcttcaaa gataggaggg gaagggggaa catgagcctt tgttgctatc 960
aatccaagaa cttatttgta cttttttttt tcaataaaac ttttcccart gsaaaraaac 1020
ccaaaaaac cgagactagt tctctcc 1047

```

```

<210> 17
<211> 833
<212> DNA
<213> Homo sapien

```

```

<400> 17
cctgatgtcg ccacgatttc ccgctcggcc gtgggtgggtg aagcttgtag cctcgctcca 60
tgaggatctt tcatgaggta tcggtcaggt cccggcccag cccggtcca acgcccggat 120
ggctggggga gggcgtagcc ctctagatg ggccccctgt gggtgacccc ctctcccgag 180
tccttgacca tgccgcgttc gcacaaaaac cgtgaagaag gcggcccggg tcatcataga 240
aaagtactac acgcgcctgg gcaacgactt ccacacgaac aagcgcgtgt gcgaggagat 300
cgccattatc cccagcaaaa agctccgcaa caagatagca ggttacgtca cgcatctgat 360
gaagcgaatt cagagaggcc cagtaaggag tatctccatc aagctgcagg aggaggagag 420
agaaaggaga gacaattatg ttctgaggt ctacgccttg gatcaggaga ttattgaagt 480
agatcctgac actaaggaaa tgctgaagct tttggacttc ggcagtctgt ccaaccttca 540
ggtcactcag cctacagttg ggatgaattt caaaacgcct cggggacctg tttgaatttt 600
ttctgtagtg ctgtattatt ttcaataaat tctgggacca ccagccttag aaacacaaga 660
aagagaaact gggaggccta tattgcgggg gcgggaaaga ggggttgag aagatgggcc 720
taaccggtgg tgtatcctgg ttgtcgctga cgcagaggtt tgctgtgtac tagatggggc 780
agaatctggc cgggtcccta tagtggaggt ctgcatgaat tacaataaac gag 833

```

```

<210> 18
<211> 1106
<212> DNA
<213> Homo sapien

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<400> 18
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gtgggtagtt gttgccttgt gactgcccac tagggcaatt gaatagcaca ttggtggcta 120
tacgttggtg cacagtgtc aagtgcatag cgccctgccg gttgttcgca aggaggagc 180

```

16

```

aactcctttt taggcaacgg gggctctctaa tgcccagagca ctgtgggctt ggtcacagga 240
ggtgcgcgatg tcagcagcac ggagcctccc cgggcaggat gacttttgag ggggacacag 300
atgtctggggc aatgccaggg tcctgggaac agaggccccg agcaggacca ggagtgcggg 360
cagcgcggggc cgggggcttc tgggagccaa aggcgaggct gaggttgcaa actctggggc 420
caacatggggc cgcgttcgca ccaaaaccgt gaagaaggcg gcccggttca tcatagaaaa 480
gtactacacg cgcctgggca acgacttcca cacgaacaag cgcgtgtgag aggagatcgc 540
cattatcccc agcaaaaagc tccgcaacaa gatagcaggc tacgtcacgc atctgatgaa 600
gcgaattcag agaggccccag taagaggatc ctccatcaag ctgcaggagg aggagagaga 660
aaggagagac aattatgttc ctgaggcttc agccttggat caggagatta ttgaagtaga 720
tcctgacact aaggaaatgc tgaagctttt ggacttcggc agtctgtcca accttcaggc 780
cactcagcct acagttggga tgaatttcaa aacgcctcgg ggacctgttt gaattttttc 840
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agcaataaat gcaactgcaa ataatgcctg ctccaagcac gacacaaaaa acagaaccat 960
ccggcaaaac caaaacaaat agaaacaccg acatacacag caaacaagga catgaaccag 1020
caacccgcga tgaagacaaa acaaacgcgc gacgcaaaaa gaacaaacca taccaccgaa 1080
ggatactcca caccaacccg gcaaat 1106

```

<210> 19  
 <211> 744  
 <212> DNA  
 <213> Homo sapien

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<400> 19
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gcgttcgcac caaaaccgtg aagaaggcgg cccgggtcat catagaaaag tactacacgc 120
gcctgggcaa cgacttcac acgaacaagc gcgtgtgca ggagatcgcc attatcccca 180
gcaaaaagct ccgcaacaag atagcagggt acgtcacgca tctgatgaag cgaattcaga 240
gaggcccagt aagaggatc tccatcaagc tgcaggagga ggagagagaa aggagagaca 300
attatgttcc tgaggcttca gccttggatc aggagattat tgaagtagat cctgacacta 360
aggaaatgct gaagcttttg gacttcggca gtctgtccaa ccttcaggtc attcatccca 420
actgtaggct gagtgcctg aaggttggac agactgctca gcctacagtt gggatgaatt 480
tcaaaacgcc tcggggacct gtttgaattt tttctgtagt gctgtattat tttcaataaa 540
ttctgggacc accagcctta gaaacacaag aaagagaaac tgggaggcct atattgcggg 600
ggcgggaaag aggggttggg gaagatgggc ctaaccgggt gtgtatcctg gttgtcgctg 660

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17

acgcagaggt ttgctgtgta ctagatgggg cagaatctgg ccgggtccct atagtggagg 720  
 tctgcatgaa ttacaataaa cgag 744

<210> 20  
 <211> 1559  
 <212> DNA  
 <213> Homo sapien

<400> 20  
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 ccctggacyg gcctcctgar aggwtgccgg tgcggggcgcc cgcggagagg gacccgtcgc 120  
 catgggcccgt gtgatccgtg gacagaggaa gggcgccggg tctgtgttcc gcgcgcacgt 180  
 gaagcaccgt aaaggcgctg cgcgcctgcg cgccgtggat ttcgctgagc ggcacggcta 240  
 catcaagggc atcgtcaagg acatcatcca cgacccggggc cgcggcgcgcc ccctcgccaa 300  
 ggtggtcttc cgggatccgt atcggtttaa gaagcggacg gagctgttca ttgccgccga 360  
 gggcattcac acgggccagt ttgtgtattg cggcaagaag gccagctca acattggcaa 420  
 tgtgctccct gtgggcacca tgcctgaggg tacaatcgtg tgctgcctgg aggagaagcc 480  
 tggagaccgt ggcaagctgg cccgggcacg agggaaactat gccaccgtta tctcccacaa 540  
 ccctgagacc aagaagaccc gtgtgaagct gccctccggc tccaagaagg ttatctcctc 600  
 agccaacaga gctgtggttg gtgtggtggc tggaggtggc cgaattgaca aacccatctt 660  
 gaaggctggc cgggctgacc acaaatataa ggcaaagagg aactgctggc cagcagtagc 720  
 ggggtgtggc atgaatcctg tggagcatcc ttttggagggt ggcaaccacc agcacatcgg 780  
 caagccctcc accatccgca gagatgcccc tgctggccgc aaagtgggtc tcattgctgc 840  
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 aaaaaaaaaa aaaaaaaggc agaaaaaaaa aaagaaaaac caaagcaaaa ggaagaaaaa 1020  
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 ctaccccagg cggagaggga ggggcgcgcg gagaagaaaa aaccacaaaa aacagccgaa 1200  
 cacgcgcaac gaagcgacca cacacaaagc agaagaaaac accgaaaagc ctaagaagga 1260  
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 aacacgacag acgcaccacc cccaggcgcg ccgaagcata gacgaacaca cgagataaac 1440  
 accacagtga cggcgcgca gaggaagcac acgacacatc caacgaagga aagaacgaaa 1500

18

cacaaagcaa aacaggccac cgccagaaac aatcagtcac gccagcccca cacaccagc 1559

<210> 21

<211> 1745

<212> DNA

<213> Homo sapien

<400> 21

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 agtgatgatg mwggcagagg aagagaaagg tgcagcaaca rcacagcagg caagcataac 180  
 agcatgcatg aagcaaaagc ccaagatcgm magatgtggg ttcagatgca ggcaggcatg 240  
 acagcggtaa ggcataagca agaagcaaaa ctcaagcaag catcaaagca gcaaatacat 300  
 tgatccaggc aagcaactaa acaagaccaa gcctatttgg accagaaacc ctgatgacat 360  
 cacccaagag gagtatggag aattctacaa gagcctcact aatgactggg aagaccactt 420  
 ggcagtcaag cacttttctg tagaaggta cgttgggaatt caggscattg ctatttatct 480  
 ctcgtcgggc tccctttgac ctttgtgaga acaagaagaa aaagaacaac atcaaactct 540  
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 agcagagcaa aatcttgaaa gtccattcgc aaaaacattg ttaagaagtg ccttgagctc 720  
 ttctctagag ctggcagaag acaaggagaa ttacaagaca attcctatga gggcacttct 780  
 cataaaaatc tcaacgcttg gaatccacga agacatccac taaccggcgc cgctgtctg 840  
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 agtccccaga cccactccaa ccgcatcta tcgcatgatc aagctagggtc taggtattga 1560

19

tgaagatgaa gtggcagcag aggaacccaa tgctgcagtt cctgatgaga tccccctct 1620  
 cgagggcgat gaggatgcgt ctgcgatgcg aggaagtcga gttagggttag gagtcgtact 1680  
 tggaaacact tgtgcttttg gtttttgtgt ccccatggg gctccactg cgcctcgagt 1740  
 gcccc 1745

<210> 22  
 <211> 379  
 <212> DNA  
 <213> Homo sapien

<400> 22  
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 cgccataaca aggaccgaaa ggttcggcgc aaggagccca agagccagga tatctacctg 120  
 aggctgttgg tcaagttata caggtttctg gccagaagaa ccaactccac attcaaccag 180  
 gttgtgttga agaggttgtt tatgagtcgc accaaccggc cgcctctgtc cctttcccgg 240  
 atgatccgga agatgaagct tcctggccgg gaaaacaaga cggccgtggt tgtggggacc 300  
 ataactgatg atgtgcgggt tcaggaggta cctcgccgg accacgcac catcacactg 360  
 cgccgctcga catgcatct 379

<210> 23  
 <211> 1577  
 <212> DNA  
 <213> Homo sapien

<400> 23  
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 tcgggatgca cagtaatctg gcggtcagct gcgggcccga ctgggatccg gggcttcggg 180  
 ggcgcgcgcc gtccggggtc cgagctggga tcttgctgcg ccgctcacgt actcacttct 240  
 gctagtgatg tctggagcta cggaattgtc atgtgggagg tcatgagcta tggagagcga 300  
 ccctactggg acatgagcaa ccaggatgtc atcaatgccg tggagcagga ttaccggctg 360  
 ccaccaccca tggactgtcc cacagcactg caccagctca tgctggactg ctgggtgcgg 420  
 gaccggaacc tcaggcccaa attctcccag attgtcaata ccctggacaa gctcatccgc 480  
 aatgctgcca gcctcaaggt cattgccagc gctcagttct gcatgtcaca gcccctcctg 540  
 gaccgcacgg tcccagatta cacaaccttc acgacagttg gtgattggct ggatgccatc 600  
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 gccagatga cggcagaaga cctgctccgt attgggggtca ccctggccgg ccaccagaag 720  
 aagatcctga gcagtatcca ggacatgcgg ctgcagatga accagacgct gcctgtgcag 780

<210>	24
<211>	1833
<212>	DNA
<213>	Homo sapien

<400>	24						
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cccagcgaag	gggagagttt	gctcccaaag	gcgcaccaat	gaccaacatt	tgccccccgg		180
aggaaagaac	tggaaccagc	ctctgacctg	tccaggtgcc	ctgtccagct	gactgcaagg		240
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caggggtgac	cctggagccc	agcctgcccc	gaggaggccc	cggctcagag	ccatgccagg		360
tgtctgtgat	agggcccctg	acttcctctc	cccgtctgaa	gaccaggtgc	tgaggcctgc		420
cttgggcagc	tcagtggctc	tgaactgcac	ggcttgggta	gtctctgggc	cccactgctc		480
cctgccttca	gtccagtggc	tgaaagacgg	gcttccattg	ggaattgggg	gccactacag		540
cctccacgag	tactcctggg	tcaaggccaa	cctgtcagag	gtgcttgtgt	ccagtgtcct		600
gggggtcaac	gtgaccagca	ctgaagtcta	tggggccttc	acctgctcca	tccagaacat		660
cagcttctcc	tccttcactc	ttcagagagc	tggccctaca	agccacgtgg	ctgcggtgct		720
ggcctccctc	ctggctcctgc	tggccctgct	gctggccgcc	ctgctctatg	tcaagtgccg		780



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<210> 25
<211> 2138
<212> DNA
<213> Homo sapien

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<210> 26
<211> 676
<212> DNA
<213> Homo sapien

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23

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 <211> 1333  
 <212> DNA  
 <213> Homo sapien

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 <212> DNA  
 <213> Homo sapien

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 <212> DNA  
 <213> Homo sapien

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<210> 30
<211> 2564
<212> DNA
<213> Homo sapien

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<223> n=a, c, g or t

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28

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&lt;211&gt; 5718

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 31

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31

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32

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34

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<212> DNA
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35

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&lt;210&gt; 36

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&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 36

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36

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52

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53

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&lt;211&gt; 1047

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 42

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54

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<212> DNA
<213> Homo sapien

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55

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&lt;211&gt; 2754

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 44

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56

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57

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58

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<213> Homo sapien

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61

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&lt;211&gt; 2118

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 48

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&lt;210&gt; 49

&lt;211&gt; 2152

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 49

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&lt;210&gt; 50

&lt;211&gt; 1899

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 50

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<211> 3643
<212> DNA
<213> Homo sapien

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68

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<210> 53  
 <211> 1005  
 <212> DNA  
 <213> Homo sapien

<400> 53  
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69

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<210> 54
<211> 3273
<212> DNA
<213> Homo sapien

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<220>
<221> misc_feature
<222> (3246)..(3246)
<223> n=a, c, g or t

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taagcgcgga cgccatggta agcgcgacg ccatggtaag cgcggacgcc atggttaagc      180
cggacgccat ggtaagcgcg gacgccatgc acacggaccc tgactactcg gctgcctatg      240
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70

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<210> 55
<211> 2967
<212> DNA
<213> Homo sapien

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73

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<211> 2761
<212> DNA
<213> Homo sapien

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<220>
<221> misc_feature
<222> (2734) .. (2734)
<223> n=a, c, g or t

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81

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<223> n=a, c, g or t

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82

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86

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&lt;210&gt; 63

&lt;211&gt; 3100

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 63

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88

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97

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&lt;210&gt; 68

&lt;211&gt; 4442

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 68

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&lt;210&gt; 69

&lt;211&gt; 2056

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 69

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101

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&lt;210&gt; 70

&lt;211&gt; 1862

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 70

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102

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&lt;210&gt; 71

&lt;211&gt; 1168

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 71

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103

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<212> DNA
<213> Homo sapien

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104

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 gctcaccttg ttcctcctg ccccggttcg agagccgagt ctgtgggcac tctctgcctt 1260  
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<210> 73  
 <211> 1445  
 <212> DNA  
 <213> Homo sapien

<400> 73  
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 tgttcgttgg cttcctgggc tgctacgggg ccatccagga atccagtgct ctgctgggga 480  
 cgttcttcac ctgcctgggc atcctgtttg cctgtgaggt ggccgccggc atctggggct 540  
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105

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&lt;210&gt; 74

&lt;211&gt; 2290

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 74

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106

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 aggcattgcta 2290

<210> 75  
 <211> 1033  
 <212> DNA  
 <213> Homo sapien

<400> 75  
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 gcgccccgc ccctcgccc gccaggcccc cttgccggcc acccgccagg ccccgcgccg 180  
 gccgccccgc cgcccaggac cggcccgcg cccgcaggcc gcccgccgcc cgcgcccga 240  
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107

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aggatgtgaa gcagttctat gaccaggccc tacagcaggc cgtggtggat gatgacgcca 660
acaacgccaa ggctgtggtg aagaccttcc acgagacgct tgactgctgt ggctccagca 720
cactgactgc tttgaccacc tcagtgtca agaacaattt gtgtccctcg ggcagcaaca 780
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cgaatgttca ggc 1033

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<210> 76
<211> 1190
<212> DNA
<213> Homo sapien

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<220>
<221> misc feature
<222> (1081)..(1081)
<223> n=a, c, g or t

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<220>
<221> misc feature
<222> (1122)..(1122)
<223> n=a, c, g or t

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<400> 76
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gcccgccccgc cgccaggac cggcccgcg cccgcaggcc gcccgccgccc cgcgccgcca 240
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gcatctacat cctcatcgct gtggcgctg tcatgatgtt cgttggcttc ctgggctgct 480
acggggccat ccaggaatcc cagtgcctgc tggggacgtt cttcacctgc ctggatcatcc 540
tggttgctg tgaggtggcc gccggcatct ggggctttgt caacaaggac cagatcgcca 600
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108

acaacgccaa ggctgtggtg aagaccttcc acgagacgct tgactgctgt ggctccagca 720  
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 tcatcagcaa cctcttcaag gaggactgcc accagaagat cgatgacctc ttctccggga 840  
 agctgtacct catcggcatt gctgccatcg tggtcgctgt gatcatgac ttcgagatga 900  
 tcctgagcat ggtgctcaat gataatcttt gtattatagg aaaagtaagg attagtggaa 960  
 gacaggggtt ctatccaaac caacaacata aacggcaata taattgttaa aattagcctt 1020  
 tatatgccat atgttatgcc tggtagatag tagactccca ataaatcttt ggtggcttga 1080  
 nttgaagagg taaagttcag atgaaatctt tggcctcctt tncctggccgg ggacagtaag 1140  
 attctcatgc taagcaataa aatggtctta tctcttaata atccccatcc 1190

&lt;210&gt; 77

&lt;211&gt; 871

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 77

ccattgtgct ggaaagagcg cgcaacggcg gcgacggcgg cgaccccacc gcgcatcctg 60  
 ccaggcctcc gcgcccagcc gcccaacgccc ccccgcgccc cgcgcccga ccctttcttc 120  
 gcgccccgc ccctcgcccc gccaggcccc cttgcccggcc acccgccagg ccccgcgccg 180  
 gcccgccccgc cgccaggac cggcccgccc cccgcaggcc gcccgccgccc cgcgcccga 240  
 tgggagtga gggctgcacc aagtgcacat agtacctgct cttcgtcttc aatttcgtct 300  
 tctggctggc tggaggcgtg atcctgggtg tggccctgtg gctccgcat gaccgcaga 360  
 ccaccaacct cctgtatctg gagctgggag acaagcccgccc gcccaacacc ttctatgtag 420  
 gcatctacat cctcatcgct gtggcgctg tcatgatgtt cggttgcttc ctgggctgct 480  
 acggggccat ccagggaatcc cagtgcctgc tggggacggt cttcacctgc ctggatcatcc 540  
 tgtttgcctg tgagggtggc gccggcatct ggggctttgt caacaaggac cagatcgcca 600  
 aggatgtgaa gcagttctat gaccaggccc tacagcaggc cgtggtggat gatgacgcca 660  
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 cactgactgc tttgaccacc tcagtgtctca agaacaattt gtgtccctcg ggcagcaaca 780  
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 agctgtacct ggccgcgacc acgctaaggg c 871

&lt;210&gt; 78

&lt;211&gt; 1283

&lt;212&gt; DNA

&lt;213&gt; Homo sapien



109

<400> 78  
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 gtgctttcaa aggagctcga aggatattgt cagtctttag gggttgggct ggatgccgag 240  
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 acgtacttat aaagaagggt ggtgaatttc acaagctatt tttggaatat ttttagaata 540  
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<210> 79  
 <211> 1169  
 <212> DNA  
 <213> Homo sapien

<400> 79  
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 atctctaaaa gtggcttgtc cctgcaggat agtgaatgct tgtctgtacc attggagtta 180  
 cacatttcat tgagttgata ccagcagatt tttttcaggg aaaaataatc caatctcata 240  
 actacagcac ctccaccat tctccctctc ctaacagtgt agagacttag atttaattgc 300

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acctttcctt tcaatagtta tttctggtgg gatgttgaag aaagctagtg ggcaaaggat 360
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<210> 80
<211> 406
<212> DNA
<213> Homo sapien

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<400> 80
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tatttctatt ttgggaagct tgatggccag atctcctctg cctaccccag ccaagagggg 180
cagggtgctgg tgggcatcta tggccagtat caactccttg gcatcaagag cattggcttt 240
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gcaaactcac ccgtgggtcg ctaggggtggg gtatggggcc atccgagctg aggccatctg 360
ggtggtggtg gctgatggta cctgcccggc ggcgctcgaa acgccg 406

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<210> 81
<211> 1902
<212> DNA
<213> Homo sapien

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<400> 81
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111

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aacagccaaa	caccagtgta	tcattctaatag	caacagccaa	acaccagtg	atcatctaata	1860
gcaacagcca	aacagacaag	tgatcatcta	atgcaacagc	ca		1902

<210> 82  
<211> 1911  
<212> DNA  
<213> Homo sapien

<400> 82  
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tgctcacgct tgccctcctg gggggcccca cctgggcagg gaagatgtat ggccctggag 180  
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113

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114

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115

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116

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117

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&lt;210&gt; 86

&lt;211&gt; 1547

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 86

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118

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&lt;210&gt; 87

&lt;211&gt; 2345

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 87

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120

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&lt;210&gt; 89

&lt;211&gt; 2068

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 89

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 cgcagaaatg cttcggttac ccacagtctt tcgccagatg agaccggtgt ccagggtact 240  
 ggctctcat ctactcggg cttatgccaa agatgtaaaa tttggtgcag atgcccgagc 300  
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121

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gggaagaaca gtgattattg agcagagttg gggaagtccc aaagtaacaa aagatgggtgt 420
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aatattttcc aagatacgca gaacagggg 2068

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&lt;210&gt; 90

&lt;211&gt; 366

122

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 90

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gccagtgtga tggatttcgcg gcgaggtgtc tactgttcac gaaatcctgt gcaagctcag      60
cttggaggggt gatcactcta ccccccaag tgcataatggg tctgtcaaag cctataactaa      120
ctttgatgct gagcgggatg ctttgaacat tgaaacagcc atcaagacca aagaggtgtg      180
gatgaggtca ccattgtcaa cttttgacc aaccgcagca atgcacagag acaggatatt      240
gccttcgcct accagagaag gacaaaaaag gaacttgcac cagcactgaa gtcagcctta      300
tctggccacc tggagacggg gattttgggc ctattgaaga cacctgctca gtatgacgct      360
tctgag                                           366

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&lt;210&gt; 91

&lt;211&gt; 1346

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 91

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catgctcgag cggcgcagtg tgatggatcg tggtcgcggc cgagggacgc tctcagctct      60
cggcgcacgg cccagcttcc ttcaaaatgt ctactgttca cgaaatcctg tgcaagctca      120
gcttggaggg tgatcactct acacccccaa gtgcatatgg gtctgtcaaa gcctatacta      180
actttgatgc tgagcgggat gctttgaaca ttgaaacagc catcaagacc aaaggtgtgg      240
atgaggtcac cattgtcaac attttgacca accgcagcaa tgcacagaga caggatattg      300
ccttcgccta ccagagaagg accaaaaagg aacttgcac agcactgaag tcagccttat      360
ctggccacct ggagacggtg attttgggcc tattgaagac acctgctcag tatgacgctt      420
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gagacctgga aaatgctttc ctgaacctgg ttcagtgcac tcagaacaag cccctgtatt      840
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gaatcatggg ctcccgcagt gaagtggaca tgttgaaaat taggtctgaa ttcaagagaa      960
agtacggcaa gtccctgtac tattatatcc agcaagacac taagggcgac taccagaaa      1020
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123

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gcattgcctg gccttcctgt ctagtctctc ctgtaagcca aagaaatgaa cattccaagg	1260
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<210> 92  
 <211> 756  
 <212> DNA  
 <213> Homo sapien

<400> 92	
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acgacgccgg cgagttcgtg gacctgtacg tgccgcggaa atgctccgct agcaatcgca	180
tcatcggtgc caaggaccac gcatccatcc agatgaacgt ggccgagggt gacaagggtca	240
caggcagggt taatggccag tttaaaactt atgctatctg cggggccatt cgtaggatgg	300
gtgagtcaga tgattccatt ctccgattgg ccaaggccga tggcatcgtc tcaaagtaag	360
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<210> 93  
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 <213> Homo sapien

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caggcagggt taatggccag tttaaaactt atgctatctg cggggccatt cgtaggatgg	300
tgagtgtttc cctgggcttt gctcatcact tcgggacatc gtggacttta ccgtgcgcat	360

124

tggagtgtgt gatggtgcct gagtagatct gctggcagag tagtttgagc cagctggact 420  
 gggctggccg cctgccgctt cttgaggggtg gaagaggggt gctctgagaa gacactcagg 480  
 cagcagactc tgcctctcac taggaggtgc cccccgacc ccgctccacc atagtcaggc 540  
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<210> 94  
 <211> 1536  
 <212> DNA  
 <213> Homo sapien

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 caatcgcatc atcggtgcca aggaccacgc atccatccag atgaacgtgg ccgaggtgag 180  
 ctgggagccc gggaggcggg aagggttgtga tatatgtgcg ggaaaggcag gctgtcccat 240  
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 tgtttccctg ggctttgctc atcacttcgg gacatcgtgg actttaccgt gcgcattgga 480  
 gtgtgtgatg gtgcctgagt agatctgctg gcagagtagt ttgagccagc tggactgggc 540



125

tggccgcctg ccgcttcttg aggggtggaag aggggtgctc tgagaagaca ctcaggcagc 600  
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 aaaaaaaaaa gagggggggg cgcgcccaaa aaatccccc ggggggcgcg cctttgcgcc 1140  
 cccgcttttg tgtgaaaggg gggcccccag gaggggcttt ttaaagggcc gcgcagcggg 1200  
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 <211> 930  
 <212> DNA  
 <213> Homo sapien

<400> 95  
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 acgtggccga ggttgacaag gtcacaggca ggtttaatgg ccagtttaa acttatgcta 180  
 tctgcggggc cattcgtagg atgggtgagt cagatgattc cattctccga ttggccaagg 240  
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 ggactgctcc agaggcgtgg tcttaacgtt gtccttttcc cctgggttcta ggaacttttg 360  
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 480  
 aaaagagggg ggggcgcgcc caaaaaatcc ccccgggggg cgcgcccttg cgccccgct 540  
 tttgtgtgaa aggggggccc ccatgagggg ctttttaaag ggccgcgcag cggggcgcg 600

126

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gttataaaaa gcaccagcag cgagtggggg aacacagccg agccacgcgg gggagatctc 660
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ttttcagaga gggggtatat aggtgggtga aaaaccagag acgcgagatc gtatggatgt 840
ggggtggtaa aagaatattg tgggtctagc gagtgtatgt aatttcgacg aaactttatt 900
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<210> 96
<211> 185
<212> PRT
<213> Homo sapien

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<223> X=any amino acid

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<220>
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<223> X=any amino acid

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<223> X=any amino acid

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<400> 96

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1           5           10           15

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Asp Arg Pro Pro Thr Leu Gln Lys Ser Ile His Ala Cys Ala Ala Arg
          20           25           30

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Ile Ala Xaa Ser Ser Gly His Arg Pro Gly Thr Phe Ser Arg Val Thr
          35           40           45

```

```

Ala Leu Asn Asp Val Glu Thr Arg Asp Ser Thr Trp Pro His Ala Arg
50           55           60

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127

Cys Glu Gly Pro Ala Xaa Ser Arg Asp Val Trp Thr Pro Ala Gly Cys  
 65 70 75 80

Xaa Gln Glu Ala Val Glu Leu Val Gln Tyr Ala Tyr Xaa Ser Glu Lys  
 85 90 95

Val Arg Gly Glu Arg Arg Arg Thr Arg Lys Glu Ala Asn Val Lys Asp  
 100 105 110

Glu Val Lys Asp Arg Gln Ile Asp Arg Gly Glu Thr Ala Lys Arg Thr  
 115 120 125

Leu Glu Gln Lys Arg Lys Arg Arg Lys Thr Arg Gln Pro Asp Ala Lys  
 130 135 140

Asp Gly Asp Ser Tyr Asp Pro Tyr Asp Phe Ser Asp Thr Glu Glu Glu  
 145 150 155 160

Met Pro Gln Val His Thr Pro Lys Thr Ala Asp Ser Gln Glu Thr Lys  
 165 170 175

Glu Ser Gln Lys Val Glu Leu Ser Glu  
 180 185

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 <212> PRT  
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 <223> X=any amino acid

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 <223> X=any amino acid

128

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 <223> X=any amino acid

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 <223> X=any amino acid

<400> 97

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 1 5 10 15

Trp Ser Ser Met Leu Thr Phe Arg Glu Gly Ser Trp Arg Thr Glu Lys  
 20 25 30

Lys Arg Lys Lys Arg Ser Xaa Gly Xaa Xaa Gln Xaa Gln Lys Met Lys  
 35 40 45

Arg Arg Lys Ala Lys Arg Xaa Xaa Xaa Arg Arg Gly Arg Glu Gly Arg  
 50 55 60

Leu Ala Ser Gln Met Pro Lys Met Gly Ile His Thr Xaa Pro Met Thr  
 65 70 75 80

Ser Val Thr Gln Arg Arg Lys Cys Leu Lys Tyr Thr Leu Gln Arg Arg  
 85 90 95

Gln Thr His Arg Arg Pro Arg Asn Pro Arg Lys Trp Ser  
 100 105

<210> 98  
 <211> 106  
 <212> PRT  
 <213> Homo sapien

<400> 98

Pro Gly Leu Ile Pro Leu Glu Asp Lys Glu Asp Tyr Gly Pro Asn Lys  
 1 5 10 15

Glu Cys Pro Leu Cys Leu Cys Pro Arg Leu Phe Glu Ser Leu Ser Arg  
 20 25 30

Asp Leu Lys Lys Asp Tyr Gly Val Tyr Leu Glu Asp Ser Gly Thr His  
 35 40 45

129

Cys Leu Glu Val Ser Val Gln Ile Phe Ile Asp Asp Lys Gly Ile Leu  
 50 55 60

Arg Gln Ile Thr Leu Asn Asp Leu Pro Val Gly Arg Ser Val Asp Glu  
 65 70 75 80

Thr Leu Arg Leu Val Gln Ala Phe Gln Tyr Thr Asp Lys His Gly Glu  
 85 90 95

Val Cys Pro Ala Gly Trp Lys Pro Gly Lys  
 100 105

<210> 99  
 <211> 75  
 <212> PRT  
 <213> Homo sapien

<400> 99

Ile Pro Lys Ser Arg Ser Gln Lys Asp Tyr Gly Val Tyr Leu Glu Asp  
 1 5 10 15

Ser Gly His Thr Leu Arg Gly Leu Phe Ile Ile Asp Asp Lys Gly Ile  
 20 25 30

Leu Arg Gln Ile Thr Leu Asn Asp Leu Pro Val Gly Arg Ser Val Asp  
 35 40 45

Glu Thr Leu Arg Leu Val Gln Ala Phe Gln Tyr Thr Asp Lys His Gly  
 50 55 60

Glu Val Cys Pro Ala Gly Trp Lys Pro Gly Lys  
 65 70 75

<210> 100  
 <211> 224  
 <212> PRT  
 <213> Homo sapien

<400> 100

Met Ser Tyr Leu Lys Arg Leu Cys Gly Thr Phe Leu Gly Gly Pro Lys  
 1 5 10 15

Pro Pro Gln Arg Val Met Phe Thr Glu Asp Leu Lys Leu Pro Ala Ser  
 20 25 30

Phe Asp Ala Arg Glu Gln Trp Pro Gln Cys Pro Thr Ile Lys Glu Ile  
 35 40 45

130

Arg Asp Gln Gly Ser Cys Gly Ser Cys Trp Ala Phe Gly Ala Val Glu  
50 55 60

Ala Ile Ser Asp Arg Ile Cys Ile Gln His Gln Cys Ala Arg Arg Ala  
65 70 75 80

Trp Arg Cys Arg Arg Arg Thr Cys Ser His Ala Val Ala Ala Cys Val  
85 90 95

Gly Thr Ala Val Met Val Ala Ile Leu Leu Lys Leu Gly Thr Ser Gly  
100 105 110

Gln Glu Lys Ala Trp Phe Leu Val Ala Ile Tyr Glu Ser His Val Gly  
115 120 125

Cys Arg Pro Tyr Phe His Thr Leu Pro Val Ser Thr Thr Ser Lys Gly  
130 135 140

Ser Arg Pro Pro Cys Thr Gly Glu Gly Asp Thr Pro Lys Cys Ser Lys  
145 150 155 160

Ser Cys Glu Pro Gly Tyr Arg Pro Ser Tyr Lys Gln Asp Lys Arg Tyr  
165 170 175

Gly Tyr Asn Ser Tyr Ser Val Ser Asn Ser Glu Lys Asp Ile Met Ala  
180 185 190

Glu Ile Ser Lys Asn Gly Pro Trp Arg Glu Leu Ser Leu Cys Ile Gly  
195 200 205

Leu Pro Gly Leu Glu Val Arg Glu Cys Thr Asn Thr Ser Pro Glu Arg  
210 215 220

<210> 101

<211> 181

<212> PRT

<213> Homo sapien

<220>

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<222> (16)..(16)

<223> X=any amino acid

<220>

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<222> (19)..(20)

<223> X=any amino acid

131

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<223> X=any amino acid

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<223> X=any amino acid

<400> 101

Pro Leu Arg Gln Arg Gln Pro Leu Arg Cys Ala Gln Ala Gly Leu Xaa  
1 5 10 15

Ala Leu Xaa Xaa Ser Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ser Xaa Xaa  
20 25 30

Ser Xaa Leu Ser Xaa Ser Leu Cys Cys Leu Leu Val Leu Ala Asn Ala  
35 40 45

Arg Ser Arg Pro Ser Phe His Pro Leu Ser Asp Glu Leu Val Asn Tyr  
50 55 60

Val Asn Lys Arg Asn Thr Thr Trp Gln Ala Gly His Asn Phe Tyr Asn  
65 70 75 80

Val Asp Met Ser Tyr Leu Lys Arg Leu Cys Gly Thr Phe Leu Gly Gly  
85 90 95

132

Pro Lys Pro Pro Gln Arg Val Met Phe Thr Glu Asp Leu Lys Leu Pro  
 100 105 110

Ala Ser Phe Asp Ala Arg Glu Gln Trp Pro Gln Cys Pro Thr Ile Lys  
 115 120 125

Glu Ile Arg Asp Gln Gly Ser Cys Gly Ser Cys Trp Ala Phe Gly Ala  
 130 135 140

Val Glu Ala Ile Ser Asp Arg Ile Xaa Ile His Thr Asn Ala His Val  
 145 150 155 160

Glu Arg Gly Gly Val Gly Gly Gly Pro Ala His Xaa Leu Trp Gln His  
 165 170 175

Val Trp Gly Arg Leu  
 180

<210> 102  
 <211> 227  
 <212> PRT  
 <213> Homo sapien

<220>  
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 <223> X=any amino acid

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 <223> X=any amino acid

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 <222> (85)..(85)  
 <223> X=any amino acid

<400> 102

Thr Ser Leu His Glu Asp Asp Trp Arg Ser Arg Pro Ser Arg Gly Pro  
 1 5 10 15

Ala Leu Thr Pro Ile Arg Asp Glu Glu Trp Gly Gly His Ser Pro Arg  
 20 25 30

Ser Pro Arg Gly Trp Asp Gln Glu Pro Ala Arg Glu Xaa Ala Gly Gly  
 35 40 45



133

Gly Trp Arg Ala Arg Arg Pro Arg Ala Arg Ser Asp Arg Arg His Trp  
 50 55 60

Thr Thr Ser Pro Arg Arg Ala Pro His Glu Ser Gly Ser Xaa Ser Pro  
 65 70 75 80

Thr Asn Asn Gly Xaa Arg Ser Arg Ala Tyr Met Pro Thr Val Asp Pro  
 85 90 95

His Val Arg Asp Asp Leu Leu Trp Thr Lys Tyr Asn Ser Arg Asp Ile  
 100 105 110

Pro Thr Ala Thr Thr Gly Asp Pro Leu Leu Leu Tyr Asn Ile Gln Ala  
 115 120 125

Leu Arg Asp Ala Ala Leu Leu Ser Tyr Pro Met Val Pro Thr His His  
 130 135 140

Ala Tyr Leu Gly Thr Leu Trp Asp Lys Arg Leu Pro Gly Ser Gly Asp  
 145 150 155 160

Leu Pro Tyr Asp Gly Arg Leu Leu Glu Glu Ala Val Arg Lys Lys Gly  
 165 170 175

Gly Arg Arg Arg Arg Arg Ile Pro His Lys Glu Glu Glu Glu Glu Ala  
 180 185 190

Tyr Tyr Pro Pro Ala Pro Pro Pro Tyr Ser Glu Thr Asp Ser Gln Ala  
 195 200 205

Ser Arg Glu Arg Arg Leu Lys Lys Asn Leu Ala Leu Ser Arg Glu Ser  
 210 215 220

Leu Val Val  
 225

<210> 103  
 <211> 222  
 <212> PRT  
 <213> Homo sapien  
 <220>  
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 <222> (10)..(10)  
 <223> X=any amino acid

134

<220>  
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 <222> (45)..(45)  
 <223> X=any amino acid

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 <222> (59)..(59)  
 <223> X=any amino acid

<220>  
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 <223> X=any amino acid

<220>  
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 <222> (86)..(86)  
 <223> X=any amino acid

<400> 103

Ser Pro Pro Ser Thr Arg Thr Ile Gly Xaa Leu Gly Leu Pro Gly Ala  
 1 5 10 15

Leu Pro Ser Pro Arg Ser Gly Met Arg Ser Gly Val Ala Thr Pro Pro  
 20 25 30

Gly Val Pro Gly Asp Gly Thr Arg Ser Pro Pro Gly Xaa Arg Gln Ala  
 35 40 45

Gly Ala Gly Gly Pro Gly Gly Pro Gly Pro Xaa Pro Ile Asp Ala Thr  
 50 55 60

Gly Arg Pro His Pro Ala Glu His Arg Thr Ser Gln Gly Ala Xaa Leu  
 65 70 75 80

Pro Arg Ile Met Val Xaa Glu Ala Gly His Tyr Met Pro Pro Gln Ser  
 85 90 95

Pro Ser Arg Asp Asp Leu Tyr Asp Gln Asp Asn Ser Arg Asp Ile Pro  
 100 105 110

Thr Leu Pro Gln Ala Thr Pro Ile Tyr Asp Asn Ile Gln Ala Pro Arg  
 115 120 125

Glu Arg Pro Pro Ala Tyr Pro Arg Ser His His His Arg Thr Arg Asp  
 130 135 140

135

Pro Arg Asp Asn Gly Ser Arg Ser Gly Asp Leu Pro Tyr Asp Gly Arg  
 145 150 155 160

Leu Leu Glu Glu Ala Val Arg Lys Lys Gly Val Gly Gly Glu Glu Asp  
 165 170 175

Thr Pro Gln Gly Gly Gly Gly Arg Gly Leu Leu Pro Ala Arg Ala Ala  
 180 185 190

Pro Val Leu Gly Asp Arg Leu Ala Gly Val Pro Arg Ala Gln Ala Gln  
 195 200 205

Glu Glu Leu Gly Pro Glu Ser Gly Lys Phe Ser Arg Leu Ile  
 210 215 220

&lt;210&gt; 104

&lt;211&gt; 74

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 104

Met Arg Leu Gly Val Phe Val Arg Arg Leu Leu Cys Val Pro Gly Arg  
 1 5 10 15

Gly Asp Asp Val Val Leu Val Val Val Cys Leu Trp Glu Pro His Val  
 20 25 30

Gly Thr Ala Val Gly Lys Tyr Tyr Arg Arg Ala Lys Cys Gly Gly Pro  
 35 40 45

Ser Ser Leu Asp Gly Ile Cys Met Met Ser Ser Glu Gly Arg Asp Val  
 50 55 60

Cys Gly Gly Leu Arg Phe Leu Ser Cys Ile  
 65 70

&lt;210&gt; 105

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 105

Gly Val Cys Ser Gly Val Leu Leu Ala Trp Ser Asp Ala Ser Trp Ser  
 1 5 10 15

Phe Arg Glu Ala Pro Leu Cys Val Pro Gly Arg Gly Asp Asp Val Val  
 20 25 30

136

Leu Val Val Val Cys Leu Trp Glu Pro His Val Gly Thr Ala Val Gly  
                   35                                  40                                  45

Lys Tyr Tyr Arg Arg Ala Lys Cys Gly Gly Pro Ser Ser Leu Asp Gly  
                   50                                  55                                  60

Ile Cys Met Met Ser Ser Glu Gly Arg Asp Val Cys Gly Gly Leu Arg  
   65                                  70                                  75                                  80

Phe Leu Ser Cys Ile  
                                   85

<210> 106  
 <211> 85  
 <212> PRT  
 <213> Homo sapien

<400> 106

Gly Val Cys Ser Gly Val Leu Leu Ala Trp Ser Asp Ala Ser Trp Ser  
   1                                  5                                  10                                  15

Phe Arg Glu Ala Pro Leu Cys Val Pro Gly Arg Gly Asp Asp Val Val  
                   20                                  25                                  30

Leu Val Val Val Cys Leu Trp Glu Pro His Val Gly Thr Ala Val Gly  
                   35                                  40                                  45

Lys Tyr Tyr Arg Arg Ala Lys Cys Gly Gly Pro Ser Ser Leu Asp Gly  
                   50                                  55                                  60

Ile Cys Met Met Ser Ser Glu Gly Arg Asp Val Cys Gly Gly Leu Arg  
   65                                  70                                  75                                  80

Phe Leu Ser Cys Ile  
                                   85

<210> 107  
 <211> 66  
 <212> PRT  
 <213> Homo sapien

<400> 107

Thr Gly Arg Leu Tyr Ser Pro Pro Glu Cys Arg Gly Lys Ser Leu Thr  
   1                                  5                                  10                                  15

Ser Lys Gly Pro Thr Lys Gln Phe Arg Asn Leu Pro Pro Val Asn Val

137

20

25

30

Pro Thr Thr Glu Val Ser Pro Thr Phe Ser Glu Asn His His Lys Asn  
                   35                  40                  45

His His Thr Lys Cys Ser Ser Tyr Thr Glu Tyr Thr Cys Gln Gly Ser  
           50                  55                  60

Ser Arg  
 65

<210> 108  
 <211> 66  
 <212> PRT  
 <213> Homo sapien  
  
 <220>  
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 <222> (54)..(54)  
 <223> X=any amino acid

<400> 108

Thr Gly Arg Leu Tyr Ser Pro Pro Glu Cys Arg Gly Lys Ser Leu Thr  
 1                  5                  10                  15

Ser Lys Gly Pro Thr Lys Gln Phe Arg Asn Leu Pro Pro Val Asn Val  
                   20                  25                  30

Pro Thr Thr Glu Val Ser Pro Thr Ser Gln Lys Thr Thr Thr Lys Thr  
           35                  40                  45

Thr Thr Pro Asn Ala Xaa Ala Thr Arg Ser Thr Pro Ala Arg Asp Pro  
           50                  55                  60

Leu Glu  
 65

<210> 109  
 <211> 126  
 <212> PRT  
 <213> Homo sapien

<400> 109

Met Trp His Leu Ser Pro Phe Ala Leu Gly Ile Cys Asp Pro Ser Ile  
 1                  5                  10                  15

Val Leu Arg Pro Leu Cys Pro His Phe Pro Val His Val Gly Asp Asp  
           20                  25                  30

138

Gly Ser Pro Phe Pro Phe Ala Gln Leu Pro Pro Gly Ala Arg Gly Pro  
 35 40 45

Ser Pro Gln Gly Val Trp Ile Tyr Ser Phe Ile Arg Pro Gly Pro Pro  
 50 55 60

Met Phe Ala Cys Leu Cys Thr Ser Thr Pro Asn Val Ser Ala Leu Pro  
 65 70 75 80

Pro Glu Ala Leu Cys Arg Ala Ser Leu Phe Trp Arg Gly Arg Gly Cys  
 85 90 95

Gly Val Thr Cys Thr Leu Gly Leu Val Asp Thr Val Asn Ser Ser Gln  
 100 105 110

Val Asp Phe Ser Gly Gly Glu Lys Lys Gly His Leu Arg Leu  
 115 120 125

<210> 110

<211> 117

<212> PRT

<213> Homo sapien

<400> 110

Leu Gly Pro Val Phe Ser Arg Ala Pro Phe Leu Thr Leu Val Trp Ile  
 1 5 10 15

Thr Cys Val Gly Met Trp His Leu Ser Pro Phe Ala Leu Gly Ile Cys  
 20 25 30

Asp Pro Ser Ile Val Leu Arg Pro Leu Cys Pro His Phe Pro Val His  
 35 40 45

Val Gly Asp Asp Gly Ser Pro Phe Pro Phe Ala Gln Leu Pro Pro Gly  
 50 55 60

Ala Arg Gly Pro Ser Pro Gln Gly Val Trp Ile Tyr Ser Phe Ile Arg  
 65 70 75 80

Pro Gly Pro Pro Met Phe Ala Cys Leu Cys Thr Ser Thr Pro Asn Val  
 85 90 95

Ser Ala Leu Pro Pro Glu Ala Leu Cys Arg Ala Ser Leu Phe Trp Glu  
 100 105 110

139

Asp Gly Gly Ala Val  
115

<210> 111  
<211> 170  
<212> PRT  
<213> Homo sapien

<400> 111

Met Tyr Phe Lys Asp Tyr Ile Gln Glu Arg Ser Asp Pro Val Glu Gln  
1 5 10 15

Gly Lys Pro Val Ile Pro Ala Ala Val Leu Gly Arg Leu His Arg Lys  
20 25 30

Trp Thr Tyr Ser Ala Val Ala Val Ser Pro Gly Ala Ala Ile Thr Gln  
35 40 45

Ile Leu Pro Val Ile His Gln Leu Asp Trp Arg Leu Met Glu Phe Lys  
50 55 60

Leu Ala Asp Pro Asp Glu Val Ala Ala Ser Gly Glu Arg Gly Leu Ala  
65 70 75 80

His Asp Glu Leu Arg Glu Ala Glu Pro Gly Leu Thr Leu Leu Arg  
85 90 95

Leu Glu His His Ala Gln Asp Val Gly Glu Ser Ala Thr Cys Ser Arg  
100 105 110

Leu Asn Val Arg Thr Ser Glu Thr Cys Leu Gly Phe Gln Arg Pro Glu  
115 120 125

Gly Thr Val Thr Arg Ile Thr Trp Ala Val Thr Thr Pro Tyr Thr Gly  
130 135 140

Arg Tyr Leu Thr Phe Arg Pro Gly Thr His Pro Leu Asn Pro Ala Pro  
145 150 155 160

Gln Gly Phe Val Val Pro Val Gly Cys Pro  
165 170

<210> 112  
<211> 225  
<212> PRT  
<213> Homo sapien

<220>

140

<221> MISC\_FEATURE  
<222> (41)..(43)  
<223> X=any amino acid

<220>  
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<222> (46)..(48)  
<223> X=any amino acid

<220>  
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<222> (50)..(50)  
<223> X=any amino acid

<220>  
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<222> (57)..(57)  
<223> X=any amino acid

<220>  
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<222> (68)..(68)  
<223> X=any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (95)..(95)  
<223> X=any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (101)..(101)  
<223> X=any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (110)..(110)  
<223> X=any amino acid

<220>  
<221> MISC\_FEATURE  
<222> (113)..(113)  
<223> X=any amino acid

<400> 112

Lys Asp Phe Asp Ser Pro Glu Asn Gly Ala Asp Ser Phe Gln Ser Ser  
1 5 10 15

Asp Ser Leu Leu Gln Ser Trp Asn Ser Gln Ser Ser Leu Leu Asp Val  
20 25 30



141

Gln Arg Val Pro Ser Phe Glu Ser Xaa Xaa Xaa Asp Cys Xaa Xaa Xaa  
 35 40 45  
 Leu Xaa Leu Asn Lys Pro Thr Cys Xaa Ser Arg Ile Thr Ser Lys Arg  
 50 55 60  
 Gly Val Thr Xaa Trp Ser Lys Ala Asn Gln Leu Tyr Leu Gln Leu Cys  
 65 70 75 80  
 Trp Pro Ala Ser Gln Glu Val Asp Leu Phe Ser Cys Gly Ser Xaa Ser  
 85 90 95  
 Trp Ser Cys Tyr Xaa Thr Asn Pro Ala Ser His Ser Ser Xaa Gly Leu  
 100 105 110  
 Xaa Thr Asp Gly Ser Leu Ser Ser Pro Thr Pro Met Arg Trp Pro Ala  
 115 120 125  
 Ser Gly Glu Arg Gly Leu Ala His Asp Glu Leu Arg Glu Ala Glu Pro  
 130 135 140  
 Gly Leu Thr Leu Leu Leu Arg Leu Glu His His Ala Gln Asp Val Gly  
 145 150 155 160  
 Glu Ser Ala Thr Cys Ser Arg Leu Asn Val Arg Thr Ser Glu Thr Cys  
 165 170 175  
 Leu Gly Phe Gln Arg Pro Glu Gly Thr Val Thr Arg Ile Thr Trp Ala  
 180 185 190  
 Val Thr Thr Pro Tyr Thr Gly Arg Tyr Leu Thr Phe Arg Pro Gly Thr  
 195 200 205  
 His Pro Leu Asn Pro Ala Pro Gln Gly Phe Val Val Pro Val Gly Cys  
 210 215 220

Pro  
225

<210> 113  
 <211> 175  
 <212> PRT  
 <213> Homo sapien  
 <400> 113

142

Gly Gly Glu Glu Gly Arg Ala Ser Trp Gly Gln Cys Arg Leu Phe Gly  
 1 5 10 15

Pro Gly Lys Leu Arg Trp Ala Gly Leu Pro Pro Val Trp Leu Cys Gln  
 20 25 30

Gly His Pro Gly Val Leu His Leu Gly Pro Gly Gly Trp Glu Gly Arg  
 35 40 45

Glu Ala Phe Gly Leu Leu Asn His Leu Glu Val Ser Leu Leu Gln Thr  
 50 55 60

Ser Ala Gly Ser Gly Ser Pro Gly Val Met Gly Ser Gly Trp Leu Asn  
 65 70 75 80

Leu Glu Ile Val Trp Ser Leu Phe Glu Gly Pro Ala Trp Leu Leu Leu  
 85 90 95

Gln Arg Asn Cys Arg His Leu Ser Phe Pro Ser Leu Pro His Pro Thr  
 100 105 110

Ala Glu Lys Gly Trp Arg Gly Glu Ser Ser Ser Ala Phe His Ser Val  
 115 120 125

Tyr Val Ser Gly Asp Ser Arg Gly Ala Gly Leu Lys Ile Ala Gly Gly  
 130 135 140

Arg Pro Ser Pro Gly Cys Cys Ser Val Gly Ala Trp Pro Ser Ser Ser  
 145 150 155 160

Arg Pro Thr Cys Phe Leu Trp Cys Gly Gln Ser Gln Leu Pro Ser  
 165 170 175

&lt;210&gt; 114

&lt;211&gt; 270

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 114

Met Asp Asp Gln Arg Asp Leu Ile Ser Asn Asn Glu Gln Leu Pro Met  
 1 5 10 15

Leu Gly Arg Arg Pro Gly Ala Pro Glu Ser Lys Cys Ser Arg Gly Ala  
 20 25 30

Leu Tyr Thr Gly Phe Ser Ile Leu Val Thr Leu Leu Leu Ala Gly Gln  
 35 40 45

143

Ala Thr Thr Ala Tyr Phe Leu Tyr Gln Gln Gln Gly Arg Leu Asp Lys  
 50 55 60

Leu Thr Val Thr Ser Gln Asn Leu Gln Leu Glu Asn Leu Arg Met Lys  
 65 70 75 80

Leu Pro Lys Pro Pro Lys Pro Val Ser Lys Met Arg Met Ala Thr Pro  
 85 90 95

Leu Leu Met Gln Ala Leu Pro Met Gly Ala Leu Pro Gln Gly Pro Met  
 100 105 110

Gln Asn Ala Thr Lys Tyr Gly Asn Met Thr Glu Asp His Val Met His  
 115 120 125

Leu Leu Gln Asn Ala Asp Pro Leu Lys Val Tyr Pro Pro Leu Lys Gly  
 130 135 140

Ser Phe Pro Glu Asn Leu Arg His Leu Lys Asn Thr Met Glu Thr Ile  
 145 150 155 160

Asp Trp Lys Val Phe Glu Ser Trp Met His His Trp Leu Leu Phe Glu  
 165 170 175

Met Ser Arg His Ser Leu Glu Gln Lys Pro Thr Asp Ala Pro Pro Lys  
 180 185 190

Val Leu Thr Lys Cys Gln Glu Glu Val Ser His Ile Pro Gly Cys Pro  
 195 200 205

Pro Gly Phe Ile Gln Ala Gln Val Arg Arg Glu Arg Gln Leu Ser Ala  
 210 215 220

Thr Pro Val Leu Trp Gly Ala Ser Ala Thr Ala Gly Val Ser Ser Pro  
 225 230 235 240

Thr Ala Arg Arg Ser Pro Thr Pro Glu Ala Ala Gly Thr Ile Thr Ala  
 245 250 255

Val Ser His Trp Asn Trp Arg Thr Arg Leu Leu Gly Trp Val  
 260 265 270

<210> 115  
 <211> 225  
 <212> PRT

144

&lt;213&gt; Homo sapien

&lt;400&gt; 115

Gly Arg Thr Gly Asp Ala Val Cys Cys Pro Pro Ala Leu Leu Asp Leu  
 1 5 10 15

Arg Gly Pro Pro Gly Pro Pro Ser Ala Gly Phe Asp Phe Ser Phe Leu  
 20 25 30

Pro Gln Pro Pro Gln Glu Lys Ala His Asp Gly Gly Arg Tyr Tyr Arg  
 35 40 45

Ala Asp Asp Ala Asn Val Val Arg Asp Arg Asp Leu Glu Val Asp Thr  
 50 55 60

Thr Leu Lys Ser Leu Ser Gln Gln Ile Glu Asn Ile Arg Ser Pro Glu  
 65 70 75 80

Gly Ser Arg Lys Asn Pro Ala Arg Thr Cys Cys Asp Leu Lys Met Cys  
 85 90 95

Gln Ser Asp Trp Lys Ser Gly Glu Tyr Trp Ile Asp Pro Asn Gln Gly  
 100 105 110

Cys Ser Leu Asp Ala Ile Lys Val Phe Met Arg Thr Met Glu Thr Gly  
 115 120 125

Glu Thr Leu Arg Val Pro His Ser Ala Ser Val Trp Arg Gln Lys Asn  
 130 135 140

Trp Tyr Ile Ser Lys Asn Pro Lys Asp Lys Arg His Val Trp Phe Gly  
 145 150 155 160

Glu Ser Met Thr Asp Gly Phe Gln Phe Glu Tyr Gly Gly Gln Gly Ser  
 165 170 175

Asp Pro Ala Asp Val Ala Ile Gln Leu Thr Phe Leu Arg Leu Met Ser  
 180 185 190

Ser Glu Ala Phe Gln Asn Ile Thr Tyr His Cys Lys Asn Ser Val Ala  
 195 200 205

Tyr Met Asp His Gln Thr Gly Asn Leu Lys Lys Ala Leu Leu Leu Gln  
 210 215 220

Gly

145

225

<210> 116  
 <211> 121  
 <212> PRT  
 <213> Homo sapien  
  
 <220>  
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 <222> (89)..(89)  
 <223> X=any amino acid

&lt;400&gt; 116

Trp Ile Asp Pro Lys Leu Arg Leu Gln Ala Gly Cys His Pro Ile Arg  
 1 5 10 15

Cys Met Arg Ser Met Glu Thr Gly Glu Thr Leu Arg Val Pro His Ser  
 20 25 30

Ala Ser Val Trp Arg Gln Lys Asn Trp Tyr Ile Ser Lys Asn Pro Lys  
 35 40 45

Asp Lys Arg His Val Trp Phe Gly Glu Ser Met Thr Asp Gly Phe Gln  
 50 55 60

Phe Glu Tyr Gly Gly Gln Gly Ser Asp Pro Ala Asp Val Ala Ile Gln  
 65 70 75 80

Leu Thr Phe Leu Arg Leu Met Ser Xaa Glu Ala Phe Gln Asn Ile Thr  
 85 90 95

Tyr His Cys Lys Asn Ser Val Ala Tyr Met Asp His Gln Thr Gly Asn  
 100 105 110

Leu Lys Lys Ala Leu Leu Leu Gln Gly  
 115 120

<210> 117  
 <211> 66  
 <212> PRT  
 <213> Homo sapien

&lt;400&gt; 117

Met Ala Leu Asn Arg Glu Phe Ser Phe Ile Val Ile Thr Thr Val Thr  
 1 5 10 15

Leu Thr Leu Cys Leu Ser Gly Leu Phe Ala Ile Leu Arg Ser Val Gly  
 20 25 30

146

Phe Pro Ile Phe Arg Asp Ile Ile Glu Leu Thr Ile Pro Tyr Tyr Gly  
                   35                  40                  45

Phe Ile Phe Phe Pro Phe Lys His Ser Lys Glu Thr Ile Tyr Tyr Phe  
           50                  55                  60

Phe Pro  
 65

<210> 118  
 <211> 81  
 <212> PRT  
 <213> Homo sapien

<220>  
 <221> MISC\_FEATURE  
 <222> (75)..(75)  
 <223> X=any amino acid

<400> 118

Gln Arg Val Leu Phe His Cys Asp His Tyr Arg Asp Thr Tyr Phe Val  
 1                  5                  10                  15

Pro Ile Arg Thr Phe Cys Asn Ile Ala Leu Cys Arg Leu Ser Asn Leu  
                   20                  25                  30

Gln Gly Tyr His Arg Ala Arg Pro Phe Pro Thr Met Asp Leu Phe Phe  
           35                  40                  45

Phe Leu Ser Asn Thr Val Arg Lys Gln Ser Ile Thr Phe Phe Leu Lys  
           50                  55                  60

Arg Arg Ile Tyr Ser Thr Val Ile Gln Leu Xaa Asn Ile Phe Arg Met  
 65                  70                  75                  80

Met

<210> 119  
 <211> 253  
 <212> PRT  
 <213> Homo sapien

<400> 119

Met Val Asp Tyr Tyr Glu Val Leu Gly Val Gln Arg His Ala Leu Tyr  
 1                  5                  10                  15

147

Pro Arg Asp Ser Tyr Lys Arg His Ile Gly Lys Leu Ala Leu Lys Trp  
                   20                                  25                                  30

His Pro Asp Lys Asn Pro Glu Asn Lys Glu Glu Ala Ser Ser Arg Lys  
                   35                                  40                                  45

Phe Lys Gln Val Ala Glu Ala Tyr Glu Val Leu Ser Asp Ala Lys Lys  
           50                                  55                                  60

Arg Asp Ile Tyr Asp Lys Tyr Gly Asn Arg Arg Ile Lys Val Val Glu  
   65                                  70                                  75                                  80

Asp Gly Gly Gly Ser His Phe Asp Ser Pro Phe Glu Phe Gly Phe Thr  
                                   85                                  90                                  95

Phe Arg Asn Pro Asp Asp Val Phe Arg Glu Phe Phe Arg Trp Lys Gly  
                                   100                                  105                                  110

Pro Ile Leu His Leu Thr Ser Leu Lys Thr Leu Leu Arg Thr Ser Leu  
                   115                                  120                                  125

Gly Ile Glu Gly Val Pro Glu Glu Ala Glu Ala Glu Gly Arg Gly Arg  
           130                                  135                                  140

Phe Asn Leu Arg Ser Val Asp Phe Arg Leu Leu Glu Ala Gly Trp Ser  
   145                                  150                                  155                                  160

Ser Met Asp Ala Gly Phe Thr Ser Leu Gly Ser Leu Gly His Gly Val  
                                   165                                  170                                  175

Leu Thr Leu Phe Ser Ser Thr Ser Phe Gly Gly Ser Gly Met Gly Asn  
                   180                                  185                                  190

Tyr Lys Ser Ile Ser Thr Ser Thr Lys Leu Val Asn Gly Arg Pro Ile  
                   195                                  200                                  205

Thr Thr Lys Arg Ile Val Asp Asn Ser Gln Asp Arg Val Gln Val Glu  
           210                                  215                                  220

Asp Asp Gly Gln Leu Lys Phe Leu Thr Ile Gly Tyr Glu Gln Leu Leu  
   225                                  230                                  235                                  240

Cys Leu Asp Asn Lys Met Ile Gln Arg Thr Arg Leu Ala  
                                   245                                  250

148

<210> 120  
 <211> 203  
 <212> PRT  
 <213> Homo sapien  
  
 <220>  
 <221> MISC\_FEATURE  
 <222> (32)..(32)  
 <223> X=any amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (104)..(104)  
 <223> X=any amino acid

<400> 120

Arg Arg Ser Ser Ser Arg Lys Phe Lys Gln Val Ala Glu Ala Tyr Glu  
 1 5 10 15

Val Leu Ser Asp Ala Lys Lys Arg Asp Ile Tyr Asp Lys Tyr Gly Xaa  
 20 25 30

Arg Arg Ile Lys Trp Trp Arg Thr Glu Val Glu Val Ile Leu Thr Val  
 35 40 45

His Leu Asn Leu Ala Ser His Ser Val Thr Gln Met Met Ser Ser Gly  
 50 55 60

Asn Phe Leu Gly Gly Arg Asp Pro Phe Ser Phe Asp Phe Phe Glu Asp  
 65 70 75 80

Pro Phe Glu Asp Phe Phe Gly Asn Arg Arg Gly Pro Arg Gly Ser Arg  
 85 90 95

Ser Arg Gly Thr Gly Ser Phe Xaa Ser Ala Phe Ser Gly Phe Pro Ser  
 100 105 110

Phe Val Ser Gly Trp Ser Ser Met Asp Ala Gly Phe Thr Ser Leu Gly  
 115 120 125

Ser Leu Gly His Gly Val Leu Thr Leu Phe Ser Ser Thr Ser Phe Gly  
 130 135 140

Gly Ser Gly Met Gly Asn Tyr Lys Ser Ile Ser Thr Ser Thr Lys Leu  
 145 150 155 160

Val Asn Gly Arg Pro Ile Thr Thr Lys Arg Ile Val Asp Asn Ser Gln  
 165 170 175



149

Asp Arg Val Gln Val Glu Asp Asp Gly Gln Leu Lys Phe Leu Thr Ile  
180 185 190

Gly Tyr Glu Gln Leu Leu Cys Leu Asp Asn Lys  
195 200

<210> 121  
<211> 128  
<212> PRT  
<213> Homo sapien

<400> 121

Met Ala Val Gln Ile Ser Lys Lys Arg Lys Phe Val Ala Asp Gly Ile  
1 5 10 15

Phe Lys Ala Glu Leu Asn Glu Phe Leu Thr Arg Glu Leu Ala Glu Asp  
20 25 30

Gly Tyr Ser Gly Val Glu Val Arg Val Thr Pro Thr Arg Thr Glu Ile  
35 40 45

Ile Ile Leu Ala Thr Arg Thr Gln Asn Val Leu Gly Glu Lys Gly Arg  
50 55 60

Arg Ile Arg Glu Leu Thr Ala Val Val Gln Lys Arg Phe Gly Phe Pro  
65 70 75 80

Glu Gly Ser Val Glu Leu Tyr Ala Glu Lys Val Ala Thr Arg Gly Leu  
85 90 95

Cys Ala Ile Ser Pro Gly Arg Val Ser Ala Val Pro Thr Pro Arg Arg  
100 105 110

Ala Arg Cys Ala Ala Ser Phe Leu Ser Leu Ser Arg Thr Pro Met Gly  
115 120 125

<210> 122  
<211> 143  
<212> PRT  
<213> Homo sapien

<220>  
<221> MISC\_FEATURE  
<222> (2)..(2)  
<223> X=any amino acid

<220>

150

<221> MISC\_FEATURE  
 <222> (115)..(115)  
 <223> X=any amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (119)..(119)  
 <223> X=any amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (121)..(121)  
 <223> X=any amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (123)..(123)  
 <223> X=any amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (125)..(126)  
 <223> X=any amino acid

<400> 122

Lys Xaa Ala Thr Gly Ala Phe Leu Ser Ala Glu Arg Gly Gly Lys Met  
 1 5 10 15

Ala Val Gln Ile Ser Lys Lys Arg Lys Phe Val Ala Asp Gly Ile Phe  
 20 25 30

Lys Ala Glu Leu Asn Glu Phe Leu Thr Arg Glu Leu Ala Glu Asp Gly  
 35 40 45

Tyr Ser Gly Val Glu Val Arg Val Thr Pro Thr Arg Thr Glu Ile Ile  
 50 55 60

Ile Leu Ala Thr Arg Thr Gln Asn Val Leu Gly Glu Lys Gly Arg Arg  
 65 70 75 80

Ile Arg Glu Leu Thr Ala Val Val Gln Lys Arg Phe Gly Phe Pro Glu  
 85 90 95

Gly Ser Val Glu Leu Tyr Ala Glu Lys Val Ala Thr Arg Gly Leu Cys  
 100 105 110

Ala Ile Xaa Pro Ala Glu Xaa Leu Xaa Tyr Xaa Leu Xaa Xaa Gly Ser  
 115 120 125

151

Leu Arg Arg Val Phe Pro Ile Ala Val Pro His Ala His Gly Ala  
 130 135 140

<210> 123  
 <211> 75  
 <212> PRT  
 <213> Homo sapien

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> X=any amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (21)..(24)  
 <223> X=any amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (26)..(26)  
 <223> X=any amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (31)..(31)  
 <223> X=any amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (36)..(36)  
 <223> X=any amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (45)..(45)  
 <223> X=any amino acid

<400> 123

His Xaa Leu Gln Lys His Leu Ala Gly Leu Gly Leu Thr Glu Ala Ile  
 1 5 10 15

Asp Lys Asn Lys Xaa Xaa Xaa Xaa Arg Xaa Ser Gly Lys Lys Xaa Phe  
 20 25 30

Tyr Leu Ala Xaa Phe His Ala Thr Ala Phe Glu Leu Xaa Thr Asp Gly  
 35 40 45

152

Asn Pro Phe Asp Gln Asp Ile Tyr Gly Arg Glu Gly Gly Ala Ala Pro  
 50 55 60

Ser Cys Ser Thr Pro Thr Thr Pro Ser Ser Ser  
 65 70 75

&lt;210&gt; 124

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 124

Cys Gly Thr Pro Lys Ala Ala Pro Cys Tyr Ser Leu Gly Ala Trp Ser  
 1 5 10 15

Gly Leu Arg Val Thr Arg Cys Glu Thr Ser Tyr Arg Ala Ser Gly Cys  
 20 25 30

Thr Gln Asp Gly Arg Arg His Pro Lys Ala Pro Glu Thr His Gly Cys  
 35 40 45

Tyr Trp Gly Trp Gly Gly Gly Glu Val Pro Ala Leu Asp Thr Pro Trp  
 50 55 60

Gly Gly Gly Gly Lys Thr Asp Arg Gly Ser Arg Val Pro Glu Arg Thr  
 65 70 75 80

Phe Pro Ala Arg Ile His Ser Thr Trp Thr Trp Ala Pro Asp Thr Met  
 85 90 95

Met Leu Ser Pro Glu Thr Pro His Pro Val Gly Pro Gly Pro  
 100 105 110

&lt;210&gt; 125

&lt;211&gt; 196

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 125

Met Ser Pro Arg Phe Pro Ala Arg Pro Trp Val Val Lys Leu Val Ala  
 1 5 10 15

Ser Leu His Glu Asp Leu His Glu Val Ser Val Arg Ser Arg Pro Ser  
 20 25 30

Pro Val Pro Thr Pro Gly Trp Leu Gly Glu Gly Val Ala Leu Val Asp  
 35 40 45

153

Gly Pro Pro Val Gly Asp Pro Leu Ser Arg Val Pro Glu Pro Cys Arg  
 50 55 60

Val Arg Thr Lys Thr Val Lys Lys Ala Ala Arg Val Ile Ile Glu Lys  
 65 70 75 80

Tyr Tyr Thr Arg Leu Gly Asn Asp Phe His Thr Asn Lys Arg Val Cys  
 85 90 95

Glu Glu Ile Ala Ile Ile Pro Ser Lys Lys Leu Arg Asn Lys Ile Ala  
 100 105 110

Gly Tyr Val Thr His Leu Met Lys Arg Ile Gln Arg Gly Pro Val Arg  
 115 120 125

Gly Ile Ser Ile Lys Leu Gln Glu Glu Glu Arg Glu Arg Arg Asp Asn  
 130 135 140

Tyr Val Pro Glu Val Ser Ala Leu Asp Gln Glu Ile Ile Glu Val Asp  
 145 150 155 160

Pro Asp Thr Lys Glu Met Leu Lys Leu Leu Asp Phe Gly Ser Leu Ser  
 165 170 175

Asn Leu Gln Val Thr Gln Pro Thr Val Gly Met Asn Phe Lys Thr Pro  
 180 185 190

Arg Gly Pro Val  
 195

<210> 126  
 <211> 207  
 <212> PRT  
 <213> Homo sapien

<400> 126

Met Pro Glu His Cys Gly Leu Gly His Arg Arg Cys Ala Cys Gln Gln  
 1 5 10 15

His Gly Ala Ser Pro Gly Arg Met Thr Phe Glu Gly Asp Thr Asp Val  
 20 25 30

Trp Ala Met Pro Gly Ser Trp Glu Gln Arg Pro Arg Ala Gly Pro Gly  
 35 40 45

Val Arg Ala Ala Arg Ala Gly Gly Phe Trp Glu Pro Lys Ala Arg Leu

60

Val Arg Thr Lys Thr Val Lys Lys Ala Ala Arg Val Ile Ile Glu Lys  
50 55 60

155

Tyr Tyr Thr Arg Leu Gly Asn Asp Phe His Thr Asn Lys Arg Val Cys  
65 70 75 80

Glu Glu Ile Ala Ile Ile Pro Ser Lys Lys Leu Arg Asn Lys Ile Ala  
85 90 95

Gly Tyr Val Thr His Leu Met Lys Arg Ile Gln Arg Gly Pro Val Arg  
100 105 110

Gly Ile Ser Ile Lys Leu Gln Glu Glu Glu Arg Glu Arg Arg Asp Asn  
115 120 125

Tyr Val Pro Glu Val Ser Ala Leu Asp Gln Glu Ile Ile Glu Val Asp  
130 135 140

Pro Asp Thr Lys Glu Met Leu Lys Leu Leu Asp Phe Gly Ser Leu Ser  
145 150 155 160

Asn Leu Gln Val Thr Gln Pro Thr Val Gly Met Asn Phe Lys Thr Pro  
165 170 175

Arg Gly Pro Val  
180

<210> 128  
<211> 150  
<212> PRT  
<213> Homo sapien

<400> 128

Met Gly Arg Val Arg Thr Lys Thr Val Lys Lys Ala Ala Arg Val Ile  
1 5 10 15

Ile Glu Lys Tyr Tyr Thr Arg Leu Gly Asn Asp Phe His Thr Asn Lys  
20 25 30

Arg Val Cys Glu Glu Ile Ala Ile Ile Pro Ser Lys Lys Leu Arg Asn  
35 40 45

Lys Ile Ala Gly Tyr Val Thr His Leu Met Lys Arg Ile Gln Arg Gly  
50 55 60

Pro Val Arg Gly Ile Ser Ile Lys Leu Gln Glu Glu Glu Arg Glu Arg  
65 70 75 80

Arg Asp Asn Tyr Val Pro Glu Val Ser Ala Leu Asp Gln Glu Ile Ile

156

85                      90                      95

Glu Val Asp Pro Asp Thr Lys Glu Met Leu Lys Leu Leu Asp Phe Gly  
                                  100                      105                      110

Ser Leu Ser Asn Leu Gln Val Ile His Pro Asn Cys Arg Leu Ser Asp  
                                  115                      120                      125

Leu Lys Val Gly Gln Thr Ala Gln Pro Thr Val Gly Met Asn Phe Lys  
                                  130                      135                      140

Thr Pro Arg Gly Pro Val  
                                  145                      150

<210> 129  
 <211> 298  
 <212> PRT  
 <213> Homo sapien

<400> 129

Met Arg Leu Ala Ala Leu Ala Val Ser Ala Cys Ile Leu Phe Arg Glu  
                                  1                      5                      10                      15

Ala Leu Leu Arg Pro Trp Thr Gly Pro Pro Glu Arg Met Pro Val Arg  
                                  20                      25                      30

Ala Ala Arg Gly Glu Gly Pro Val Ala Met Gly Arg Val Ile Arg Gly  
                                  35                      40                      45

Gln Arg Lys Gly Ala Gly Ser Val Phe Arg Ala His Val Lys His Arg  
                                  50                      55                      60

Lys Gly Ala Ala Arg Leu Arg Ala Val Asp Phe Ala Glu Arg His Gly  
                                  65                      70                      75                      80

Tyr Ile Lys Gly Ile Val Lys Asp Ile Ile His Asp Pro Gly Arg Gly  
                                  85                      90                      95

Ala Pro Leu Ala Lys Val Val Phe Arg Asp Pro Tyr Arg Phe Lys Lys  
                                  100                      105                      110

Arg Thr Glu Leu Phe Ile Ala Ala Glu Gly Ile His Thr Gly Gln Phe  
                                  115                      120                      125

Val Tyr Cys Gly Lys Lys Ala Gln Leu Asn Ile Gly Asn Val Leu Pro  
                                  130                      135                      140



157

Val Gly Thr Met Pro Glu Gly Thr Ile Val Cys Cys Leu Glu Glu Lys  
 145 150 155 160

Pro Gly Asp Arg Gly Lys Leu Ala Arg Ala Ser Gly Asn Tyr Ala Thr  
 165 170 175

Val Ile Ser His Asn Pro Glu Thr Lys Lys Thr Arg Val Lys Leu Pro  
 180 185 190

Ser Gly Ser Lys Lys Val Ile Ser Ser Ala Asn Arg Ala Val Val Gly  
 195 200 205

Val Val Ala Gly Gly Gly Arg Ile Asp Lys Pro Ile Leu Lys Ala Gly  
 210 215 220

Arg Ala Tyr His Lys Tyr Lys Ala Lys Arg Asn Cys Trp Pro Arg Val  
 225 230 235 240

Arg Gly Val Ala Met Asn Pro Val Glu His Pro Phe Gly Gly Gly Asn  
 245 250 255

His Gln His Ile Gly Lys Pro Ser Thr Ile Arg Arg Asp Ala Pro Ala  
 260 265 270

Gly Arg Lys Val Gly Leu Ile Ala Ala Arg Arg Thr Gly Arg Leu Arg  
 275 280 285

Gly Thr Lys Thr Val Gln Glu Lys Glu Asn  
 290 295

<210> 130

<211> 271

<212> PRT

<213> Homo sapien

<220>

<221> MISC\_FEATURE

<222> (1)..(2)

<223> X=any amino acid

<400> 130

Xaa Xaa Ala Gly Ala Gly Ala Arg Gly Glu Gly Pro Val Ala Met Gly  
 1 5 10 15

Arg Val Ile Arg Gly Gln Arg Lys Gly Ala Gly Ser Val Phe Arg Ala  
 20 25 30

158

His Val Lys His Arg Lys Gly Ala Ala Arg Leu Arg Ala Val Asp Phe  
 35 40 45

Ala Glu Arg His Gly Tyr Ile Lys Gly Ile Val Lys Asp Ile Ile His  
 50 55 60

Asp Pro Gly Arg Gly Ala Pro Leu Ala Lys Val Val Phe Arg Asp Pro  
 65 70 75 80

Tyr Arg Phe Lys Lys Arg Thr Glu Leu Phe Ile Ala Ala Glu Gly Ile  
 85 90 95

His Thr Gly Gln Phe Val Tyr Cys Gly Lys Lys Ala Gln Leu Asn Ile  
 100 105 110

Gly Asn Val Leu Pro Val Gly Thr Met Pro Glu Gly Thr Ile Val Cys  
 115 120 125

Cys Leu Glu Glu Lys Pro Gly Asp Arg Gly Lys Leu Ala Arg Ala Ser  
 130 135 140

Gly Asn Tyr Ala Thr Val Ile Ser His Asn Pro Glu Thr Lys Lys Thr  
 145 150 155 160

Arg Val Lys Leu Pro Ser Gly Ser Lys Lys Val Ile Ser Ser Ala Asn  
 165 170 175

Arg Ala Val Val Gly Val Val Ala Gly Gly Gly Arg Ile Asp Lys Pro  
 180 185 190

Ile Leu Lys Ala Gly Arg Ala Tyr His Lys Tyr Lys Ala Lys Arg Asn  
 195 200 205

Cys Trp Pro Arg Val Arg Gly Val Ala Met Asn Pro Val Glu His Pro  
 210 215 220

Phe Gly Gly Gly Asn His Gln His Ile Gly Lys Pro Ser Thr Ile Arg  
 225 230 235 240

Arg Asp Ala Pro Ala Gly Arg Lys Val Gly Leu Ile Ala Ala Arg Arg  
 245 250 255

Thr Gly Arg Leu Arg Gly Thr Lys Thr Val Gln Glu Lys Glu Asn  
 260 265 270

159

&lt;210&gt; 131

&lt;211&gt; 550

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 131

Met Met Lys Ala Ala Gly Lys Gln Gln Arg Val Gln Gln Gln His Ser  
 1 5 10 15

Ser Ala Gln His Gln Gln His Ala Cys Thr Ala Asn Ser Pro Lys His  
 20 25 30

Arg Lys His Val Gly Ser Ser Met Gln Ala Gly Met His Ser Arg Ser  
 35 40 45

Gln Ala Ser Ser Thr Ala Gln Gln Gln Leu Lys His Ser Ile Gln Gln  
 50 55 60

Gln Gln Ile Pro Leu His Pro Gly Thr Ala Thr Gln Thr Ser Thr Lys  
 65 70 75 80

Pro Ile Trp Thr Arg Asn Pro Asp Asp Ile Thr Gln Glu Glu Tyr Gly  
 85 90 95

Glu Phe Tyr Lys Ser Leu Thr Asn Asp Trp Glu Asp His Leu Ala Val  
 100 105 110

Lys His Phe Ser Val Glu Gly Gln Leu Glu Phe Arg Ala Leu Leu Phe  
 115 120 125

Ile Pro Arg Arg Ala Pro Phe Asp Leu Cys Glu Asn Lys Lys Lys Lys  
 130 135 140

Asn Asn Ile Lys Leu Tyr Val Arg Arg Val Phe Ile Met Asp Ser Cys  
 145 150 155 160

Asp Glu Leu Ile Pro Glu Tyr Leu Asn Phe Ile Arg Gly Val Val Asp  
 165 170 175

Ser Glu Asp Leu Pro Leu Asn Ile Ser Arg Glu Met Leu Gln Gln Ser  
 180 185 190

Lys Ile Leu Lys Val His Ser Gln Gln Thr Leu Leu Arg Ser Ala Leu  
 195 200 205

Ser Ser Ser Leu Glu Leu Ala Glu Asp Lys Ala Glu Leu Gln Asp Asn  
 210 215 220

160

Ser Tyr Glu Gly Thr Ser His Lys Asn Leu Asn Ala Trp Asn Pro Arg  
 225 230 235 240

Arg His Pro Leu Thr Gly Ala Ala Cys Leu Glu Leu Leu Arg Tyr His  
 245 250 255

Thr Ser Gln Ser Gly Asp Glu Met Thr Ser Leu Ser Glu Tyr Val Ser  
 260 265 270

Arg Met Lys Glu Thr Gln Lys Ser Ile Tyr Tyr Ile Thr Gly Glu Ser  
 275 280 285

Lys Glu Gln Val Ala Asn Ser Ala Phe Val Glu Arg Val Arg Lys Arg  
 290 295 300

Gly Phe Glu Val Val Tyr Met Thr Glu Pro Ile Asp Glu Tyr Cys Val  
 305 310 315 320

Gln Gln Leu Lys Glu Phe Asp Gly Lys Ser Leu Val Ser Val Thr Lys  
 325 330 335

Glu Gly Leu Glu Leu Pro Glu Asp Glu Glu Glu Lys Lys Lys Met Glu  
 340 345 350

Glu Ser Lys Ala Lys Phe Glu Asn Leu Cys Lys Leu Met Lys Glu Ile  
 355 360 365

Leu Asp Lys Lys Val Glu Lys Val Thr Ile Ser Asn Arg Leu Val Ser  
 370 375 380

Ser Pro Cys Cys Ile Val Thr Ser Thr Tyr Gly Trp Thr Ala Asn Met  
 385 390 395 400

Glu Arg Ile Met Lys Ala Gln Ala Leu Arg Asp Asn Ser Thr Met Gly  
 405 410 415

Tyr Met Met Ala Lys Lys His Leu Glu Ile Asn Pro Asp His Pro Ile  
 420 425 430

Val Glu Thr Leu Arg Gln Lys Ala Glu Ala Asp Glu Asn Asp Lys Ala  
 435 440 445

Val Lys Asp Leu Val Val Leu Leu Phe Glu Thr Ala Leu Val Ser Ser  
 450 455 460

161

Gly Phe Ser Leu Glu Asp Pro Gln Thr Gln Ser Asn Arg Ile Tyr Arg  
 465 470 475 480

Met Ile Lys Leu Gly Leu Gly Ile Asp Glu Asp Glu Val Ala Ala Glu  
 485 490 495

Glu Pro Asn Ala Ala Val Pro Asp Glu Ile Pro Pro Leu Glu Gly Asp  
 500 505 510

Glu Asp Ala Ser Arg Met Arg Gly Ser Arg Val Arg Leu Gly Val Val  
 515 520 525

Leu Gly Asn Thr Cys Ala Phe Gly Phe Cys Val Pro His Gly Ala Pro  
 530 535 540

Thr Ala Pro Arg Val Pro  
 545 550

<210> 132  
 <211> 190  
 <212> PRT  
 <213> Homo sapien  
 <220>  
 <221> MISC\_FEATURE  
 <222> (181)..(181)  
 <223> X=any amino acid

<400> 132

Glu Leu Leu Arg Tyr His Thr Ser Gln Ser Gly Asp Glu Met Thr Ser  
 1 5 10 15

Leu Ser Glu Tyr Val Ser Arg Met Lys Glu Thr Gln Lys Ser Ile Tyr  
 20 25 30

Tyr Ile Thr Gly Glu Ser Lys Glu Gln Val Ala Asn Ser Ala Phe Val  
 35 40 45

Glu Arg Val Arg Lys Arg Gly Phe Glu Val Val Tyr Met Thr Glu Pro  
 50 55 60

Ile Asp Glu Tyr Cys Val Gln Gln Leu Lys Glu Phe Asp Gly Lys Ser  
 65 70 75 80

Leu Val Ser Val Thr Lys Glu Gly Leu Glu Leu Pro Glu Asp Glu Glu  
 85 90 95

162

Glu Lys Lys Lys Met Glu Glu Ser Lys Ala Lys Phe Glu Asn Leu Cys  
                   100                  105                  110

Lys Leu Met Lys Glu Ile Leu Asp Lys Lys Val Glu Lys Val Thr Ile  
                   115                  120                  125

Ser Asn Arg Leu Val Ser Ser Pro Cys Cys Ile Val Thr Ser Thr Tyr  
                   130                  135                  140

Gly Trp Thr Ala Asn Met Glu Arg Ile Met Lys Ala Gln Ala Leu Arg  
                   145                  150                  155                  160

Asp Asn Ser Thr Met Gly Tyr Met Met Ala Lys Lys His Leu Glu Ile  
                   165                  170                  175

Asn Pro Asp His Xaa His Cys Gly Asp Ala Ala Ala Glu Gly  
                   180                  185                  190

<210> 133  
 <211> 111  
 <212> PRT  
 <213> Homo sapien

<400> 133

Met Gly Val Asp Ile Arg His Asn Lys Asp Arg Lys Val Arg Arg Lys  
   1                  5                  10                  15

Glu Pro Lys Ser Gln Asp Ile Tyr Leu Arg Leu Leu Val Lys Leu Tyr  
                   20                  25                  30

Arg Phe Leu Ala Arg Arg Thr Asn Ser Thr Phe Asn Gln Val Val Leu  
                   35                  40                  45

Lys Arg Leu Phe Met Ser Arg Thr Asn Arg Pro Pro Leu Ser Leu Ser  
                   50                  55                  60

Arg Met Ile Arg Lys Met Lys Leu Pro Gly Arg Glu Asn Lys Thr Ala  
                   65                  70                  75                  80

Val Val Val Gly Thr Ile Thr Asp Asp Val Arg Val Gln Glu Val Pro  
                   85                  90                  95

Arg Arg Asp His Ala Ser Ile Thr Leu Arg Arg Ser Thr Cys Ile  
                   100                  105                  110

<210> 134

163

&lt;211&gt; 261

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 134

Phe Pro Arg Glu Ser Gly Pro Arg Pro Val Pro Arg Thr Asp Ser Gly  
1 5 10 15

Ala Ser Val Gly Ala Gly Cys Leu Arg Thr Leu Ala Val Gly Pro Gly  
20 25 30

Gln Glu Gly Ala Gly Gly Arg Asp Ser Gly Cys Thr Val Ile Trp Arg  
35 40 45

Ser Ala Ala Gly Pro Thr Gly Ile Arg Gly Phe Gly Gly Ala Arg Arg  
50 55 60

Pro Gly Ser Glu Leu Gly Ser Cys Cys Ala Ala His Val Leu Thr Ser  
65 70 75 80

Ala Ser Asp Val Trp Ser Tyr Gly Ile Val Met Trp Glu Val Met Ser  
85 90 95

Tyr Gly Glu Arg Pro Tyr Trp Asp Met Ser Asn Gln Asp Val Ile Asn  
100 105 110

Ala Val Glu Gln Asp Tyr Arg Leu Pro Pro Pro Met Asp Cys Pro Thr  
115 120 125

Ala Leu His Gln Leu Met Leu Asp Cys Trp Val Arg Asp Arg Asn Leu  
130 135 140

Arg Pro Lys Phe Ser Gln Ile Val Asn Thr Leu Asp Lys Leu Ile Arg  
145 150 155 160

Asn Ala Ala Ser Leu Lys Val Ile Ala Ser Ala Gln Ser Gly Met Ser  
165 170 175

Gln Pro Leu Leu Asp Arg Thr Val Pro Asp Tyr Thr Thr Phe Thr Thr  
180 185 190

Val Gly Asp Trp Leu Asp Ala Ile Lys Met Gly Arg Tyr Lys Glu Ser  
195 200 205

Phe Val Ser Ala Gly Phe Ala Ser Phe Asp Leu Val Ala Gln Met Thr  
210 215 220

164

Ala Glu Asp Leu Leu Arg Ile Gly Val Thr Leu Ala Gly His Gln Lys  
 225 230 235 240

Lys Ile Leu Ser Ser Ile Gln Asp Met Arg Leu Gln Met Asn Gln Thr  
 245 250 255

Leu Pro Val Gln Val  
 260

<210> 135  
 <211> 361  
 <212> PRT  
 <213> Homo sapien

<400> 135

Met Pro Gly Val Cys Asp Arg Ala Pro Asp Phe Leu Ser Pro Ser Glu  
 1 5 10 15

Asp Gln Val Leu Arg Pro Ala Leu Gly Ser Ser Val Ala Leu Asn Cys  
 20 25 30

Thr Ala Trp Val Val Ser Gly Pro His Cys Ser Leu Pro Ser Val Gln  
 35 40 45

Trp Leu Lys Asp Gly Leu Pro Leu Gly Ile Gly Gly His Tyr Ser Leu  
 50 55 60

His Glu Tyr Ser Trp Val Lys Ala Asn Leu Ser Glu Val Leu Val Ser  
 65 70 75 80

Ser Val Leu Gly Val Asn Val Thr Ser Thr Glu Val Tyr Gly Ala Phe  
 85 90 95

Thr Cys Ser Ile Gln Asn Ile Ser Phe Ser Ser Phe Thr Leu Gln Arg  
 100 105 110

Ala Gly Pro Thr Ser His Val Ala Ala Val Leu Ala Ser Leu Leu Val  
 115 120 125

Leu Leu Ala Leu Leu Leu Ala Ala Leu Leu Tyr Val Lys Cys Arg Leu  
 130 135 140

Asn Val Leu Leu Trp Tyr Gln Asp Ala Tyr Gly Glu Val Glu Ile Asn  
 145 150 155 160

Asp Gly Lys Leu Tyr Asp Ala Tyr Val Ser Tyr Ser Asp Cys Pro Glu



165  
 165 170 175  
 Asp Arg Lys Phe Val Asn Phe Ile Leu Lys Pro Gln Leu Glu Arg Arg  
 180 185 190  
 Arg Gly Tyr Lys Leu Phe Leu Asp Asp Arg Asp Leu Leu Pro Arg Ala  
 195 200 205  
 Glu Pro Ser Ala Asp Leu Leu Val Asn Leu Ser Arg Cys Arg Arg Leu  
 210 215 220  
 Ile Val Val Leu Ser Asp Ala Phe Leu Ser Arg Ala Trp Cys Ser His  
 225 230 235 240  
 Ser Phe Arg Trp Val Pro Arg Gly Val Gly Trp Ala Pro Ala Tyr Thr  
 245 250 255  
 His Pro Pro Asp Gly Pro Ala Pro Gln Gly Gly Pro Val Pro Ala Ala  
 260 265 270  
 Gly Ala His Pro Gln Thr His Leu His His Leu Arg Gly Pro Glu Ala  
 275 280 285  
 Arg Pro Arg Ala Pro Gly Ala Pro Pro Ala Ala Pro Ala Pro Pro Pro  
 290 295 300  
 Gly Asp Leu Ala Ala Leu Glu Ala Arg Leu Arg Asp Ser Phe Leu Arg  
 305 310 315 320  
 Phe Leu Glu Arg Ser Ala Ala Gly Ala Ala Ala Glu Gly Ala Val Gln  
 325 330 335  
 Ala Gly Gly Arg Arg Pro Pro Asp Ala Ala Ala Gly Arg Gln Gly Pro  
 340 345 350  
 His Ala Asp Ser Ser Arg Pro Ser Pro  
 355 360  
 <210> 136  
 <211> 329  
 <212> PRT  
 <213> Homo sapien  
 <400> 136  
 Met Pro Gly Val Cys Asp Arg Ala Pro Asp Phe Leu Ser Pro Ser Glu  
 1 5 10 15

166

Asp Gln Val Leu Arg Pro Ala Leu Gly Ser Ser Val Ala Leu Asn Cys  
                   20                                  25                                  30

Thr Ala Trp Val Val Ser Gly Pro His Cys Ser Leu Pro Ser Val Gln  
           35                                  40                                  45

Trp Leu Lys Asp Gly Leu Pro Leu Gly Ile Gly Gly His Tyr Ser Leu  
       50                                  55                                  60

His Glu Tyr Ser Trp Val Lys Ala Asn Leu Ser Glu Val Leu Val Ser  
   65                                  70                                  75                                  80

Ser Val Leu Gly Val Asn Val Thr Ser Thr Glu Val Tyr Gly Ala Phe  
                                   85                                  90                                  95

Thr Cys Ser Ile Gln Asn Ile Ser Phe Ser Ser Phe Thr Leu Gln Arg  
                                   100                                  105                                  110

Ala Gly Pro Thr Ser His Val Ala Ala Val Leu Ala Ser Leu Leu Val  
       115                                  120                                  125

Leu Leu Ala Leu Leu Leu Ala Ala Leu Leu Tyr Val Lys Cys Arg Leu  
       130                                  135                                  140

Asn Val Leu Leu Trp Tyr Gln Asp Ala Tyr Gly Glu Val Glu Ile Asn  
   145                                  150                                  155                                  160

Asp Gly Lys Leu Tyr Asp Ala Tyr Val Ser Tyr Ser Asp Cys Pro Glu  
                                   165                                  170                                  175

Asp Arg Lys Phe Val Asn Phe Ile Leu Lys Pro Gln Leu Glu Arg Arg  
                                   180                                  185                                  190

Arg Gly Tyr Lys Leu Phe Leu Asp Asp Arg Asp Leu Leu Pro Arg Ala  
                                   195                                  200                                  205

Glu Pro Ser Ala Asp Leu Leu Val Asn Leu Ser Arg Cys Arg Arg Leu  
       210                                  215                                  220

Ile Val Val Leu Ser Asp Ala Phe Leu Ser Arg Ala Trp Cys Ser His  
   225                                  230                                  235                                  240

Ser Phe Arg Trp Val Pro Arg Gly Val Gly Trp Ala Pro Ala Tyr Thr  
                                   245                                  250                                  255

167

His Pro Pro Asp Gly Pro Ala Pro Gln Gly Gly Pro Val Pro Ala Ala  
 260 265 270

Gly Ala His Pro Gln Thr His Leu His His Leu Arg Gly Pro Glu Ala  
 275 280 285

Arg Pro Arg Ala Pro Gly Ala Pro Pro Ala Ala Pro Ala Pro Pro Pro  
 290 295 300

Gly Asp Leu Ala Ala Leu Glu Ala Arg Leu Arg Gly Ala Glu Gln Ala  
 305 310 315 320

Arg Glu Gly Pro Gly Leu Ala Ala Gly  
 325

&lt;210&gt; 137

&lt;211&gt; 164

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 137

Pro Pro Pro Leu Arg Arg Arg Arg Pro Pro Ser Arg Arg Ala Leu Arg.  
 1 5 10 15

Arg Pro Leu Gly Glu Pro Glu Pro Leu Pro Thr Pro His Arg Gly Ala  
 20 25 30

Phe Gly Arg Leu Pro Glu Pro Gly Leu Val Gln Pro Gln Leu Pro Thr  
 35 40 45

Pro Ser Ser Asp Phe Trp Lys Glu Val Gln Leu Ala Leu Pro Arg Lys  
 50 55 60

Val Arg Tyr Arg Pro Val Glu Gly Asp Pro Gln Thr Gln Leu Gln Asp  
 65 70 75 80

Asp Lys Asp Pro Met Leu Ile Leu Arg Gly Arg Val Pro Glu Gly Arg  
 85 90 95

Ala Leu Asp Ser Glu Val Asp Pro Asp Pro Glu Gly Asp Leu Gly Val  
 100 105 110

Arg Gly Pro Val Phe Gly Glu Pro Ser Ala Pro Pro His Thr Ser Gly  
 115 120 125

Val Ser Leu Gly Glu Ser Arg Ser Ser Glu Val Asp Val Ser Asp Leu  
 130 135 140

168

Gly Ser Arg Asn Tyr Ser Ala Arg Thr Asp Phe Tyr Cys Leu Val Ser  
 145 150 155 160

Lys Asp Asp Met

<210> 138  
 <211> 66  
 <212> PRT  
 <213> Homo sapien

<400> 138

Met Leu Leu Glu Arg Arg Ser Val Met Asp Arg Gly Arg Gly Glu Glu  
 1 5 10 15

Trp Arg Ala Arg Ser Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val  
 20 25 30

Gly Gly Phe Val Leu Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile  
 35 40 45

Tyr Phe Arg Asn Gln Lys Gly His Ser Gly Leu Gln Pro Thr Gly Phe  
 50 55 60

Leu Ser  
 65

<210> 139  
 <211> 135  
 <212> PRT  
 <213> Homo sapien

<400> 139

Pro His Ser Arg Lys Asn Leu Leu Pro Gln Leu Cys Arg Met Lys Ser  
 1 5 10 15

Phe Pro Ala Trp Gln Leu Phe Phe His Lys Arg Gly Leu Ser Gln Asp  
 20 25 30

Leu Val Ala Thr Gly Ser Ala Thr Ala Glu Asn Val Leu Pro Cys Gly  
 35 40 45

Phe Leu Ser Ser Cys Pro Trp Pro Glu Val Pro Ala Leu Met Ala Ala  
 50 55 60

Pro His Leu Gln Leu Leu Cys Ser Pro Leu Pro Lys Pro Tyr Gly Leu

169

65

70

75

80

Pro Cys Ile Cys Thr His Pro Val Arg Gln Thr His Tyr Ile Ile Lys  
85 90 95

Cys Phe Ser Lys Met Glu Leu Asn Ile Ile Trp Ser Ile Trp Leu Gln  
100 105 110

Arg Gln Lys Met Lys Arg Lys Arg Glu Asp Tyr Phe Pro Asn Arg Ile  
115 120 125

Met Ile Phe Met Tyr Met Ser  
130 135

&lt;210&gt; 140

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 140

Met Lys Ser Phe Pro Ala Trp Gln Leu Phe Phe His Lys Arg Gly Leu  
1 5 10 15

Ser Gln Asp Leu Val Ala Thr Gly Ser Ala Thr Leu Gln Lys Met Ser  
20 25 30

Ile Pro Cys Gly Phe Leu Ser Ser Cys Pro Trp Pro Glu Val Pro Ala  
35 40 45

Leu Met Ala Ala Pro His Leu Gln Leu Leu Cys Ser Pro Leu Pro Lys  
50 55 60

Pro Tyr Gly Leu Pro Cys Ile Cys Thr His Pro Val Arg Gln Thr His  
65 70 75 80

Tyr Ile Ile Lys Cys Phe Ser Lys Met Glu Leu Asn Ile Ile Trp Ser  
85 90 95

Ile Trp Leu Gln Arg Gln Lys Met Lys Arg Lys Arg Glu Asp Tyr Phe  
100 105 110

Pro Ile Glu  
115

&lt;210&gt; 141

&lt;211&gt; 135

&lt;212&gt; PRT

170

&lt;213&gt; Homo sapien

&lt;400&gt; 141

Pro His Ser Arg Lys Asn Leu Leu Pro Gln Leu Cys Arg Met Lys Ser  
 1 5 10 15

Phe Pro Ala Trp Gln Leu Phe Phe His Lys Arg Gly Leu Ser Gln Asp  
 20 25 30

Leu Val Ala Thr Gly Ser Ala Thr Ala Glu Asn Val Leu Pro Cys Gly  
 35 40 45

Phe Leu Ser Ser Cys Pro Trp Pro Glu Val Pro Ala Leu Met Ala Ala  
 50 55 60

Pro His Leu Gln Leu Leu Cys Ser Pro Leu Pro Lys Pro Tyr Gly Leu  
 65 70 75 80

Pro Cys Ile Cys Thr His Pro Val Arg Gln Thr His Tyr Ile Ile Lys  
 85 90 95

Cys Phe Ser Lys Met Glu Leu Asn Ile Ile Trp Ser Ile Trp Leu Gln  
 100 105 110

Arg Gln Lys Met Lys Arg Lys Arg Glu Asp Tyr Phe Pro Asn Arg Ile  
 115 120 125

Met Ile Phe Met Tyr Met Ser  
 130 135

&lt;210&gt; 142

&lt;211&gt; 220

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 142

Met Asp Gln His Phe Arg Thr Thr Pro Leu Glu Lys Asn Ala Pro Val  
 1 5 10 15

Leu Leu Ala Leu Leu Gly Ile Trp Tyr Ile Asn Cys Phe Gly Cys Glu  
 20 25 30

Thr His Ala Met Leu Pro Tyr Asp Gln Tyr Leu His Arg Phe Ala Ala  
 35 40 45

Tyr Phe Gln Gln Gly Asp Met Glu Ser Asn Gly Lys Tyr Ile Thr Lys  
 50 55 60

171

Ser Gly Thr Arg Val Asp His Gln Thr Gly Pro Ile Val Trp Gly Glu  
65 70 75 80

Pro Gly Thr Asn Gly Gln His Ala Phe Tyr Gln Leu Ile His Gln Gly  
85 90 95

Thr Lys Met Ile Pro Cys Asp Phe Leu Ile Pro Val Gln Thr Gln His  
100 105 110

Pro Ile Arg Lys Gly Leu His His Lys Ile Leu Leu Ala Asn Phe Leu  
115 120 125

Ala Gln Thr Glu Ala Leu Met Arg Gly Lys Ser Thr Glu Glu Ala Arg  
130 135 140

Lys Glu Leu Gln Ala Ala Gly Lys Ser Pro Glu Asp Leu Glu Arg Leu  
145 150 155 160

Leu Pro His Lys Val Phe Glu Gly Asn Arg Pro Thr Asn Ser Ile Val  
165 170 175

Phe Thr Lys Leu Thr Pro Phe Met Leu Gly Ala Leu Val Ala Met Tyr  
180 185 190

Glu His Lys Ile Phe Val Gln Gly Ile Ile Trp Asp Ile Asn Ser Phe  
195 200 205

Asp Gln Trp Gly Ser Gly Ala Gly Lys Ala Ala Gly  
210 215 220

<210> 143

<211> 287

<212> PRT

<213> Homo sapien

<220>

<221> MISC\_FEATURE

<222> (7)..(7)

<223> X=any amino acid

<400> 143

Val Arg Gly Leu Gly Gly Xaa Ala Ile Gly Leu Ser Ile Ala Leu His  
1 5 10 15

Val Gly Phe Asp Asn Phe Glu Gln Leu Leu Ser Gly Ala His Trp Met  
20 25 30

172

Asp Gln His Phe Arg Thr Thr Pro Leu Glu Lys Asn Ala Pro Val Leu  
 35 40 45

Leu Ala Leu Leu Gly Ile Trp Tyr Ile Asn Cys Phe Gly Cys Glu Thr  
 50 55 60

His Ala Met Leu Pro Tyr Asp Gln Tyr Leu His Arg Phe Ala Ala Tyr  
 65 70 75 80

Phe Gln Gln Gly Asp Met Glu Ser Asn Gly Lys Tyr Ile Thr Lys Ser  
 85 90 95

Gly Thr Arg Val Asp His Gln Thr Gly Pro Ile Val Trp Gly Glu Pro  
 100 105 110

Gly Thr Asn Gly Gln His Ala Phe Tyr Gln Leu Ile His Gln Gly Thr  
 115 120 125

Lys Met Ile Pro Cys Asp Phe Leu Ile Pro Val Gln Thr Gln His Pro  
 130 135 140

Ile Arg Lys Gly Leu His His Lys Ile Leu Leu Ala Asn Phe Leu Ala  
 145 150 155 160

Gln Thr Glu Ala Leu Met Arg Gly Lys Ser Thr Glu Glu Ala Arg Lys  
 165 170 175

Glu Leu Gln Ala Ala Gly Lys Ser Pro Glu Asp Leu Glu Arg Leu Leu  
 180 185 190

Pro His Lys Val Phe Glu Gly Asn Arg Pro Thr Asn Ser Ile Val Phe  
 195 200 205

Thr Lys Leu Thr Pro Phe Met Leu Gly Ala Leu Val Ala Met Tyr Glu  
 210 215 220

His Lys Ile Phe Val Gln Gly Ile Ile Trp Asp Ile Asn Ser Phe Asp  
 225 230 235 240

Gln Trp Gly Val Glu Leu Gly Lys Gln Leu Ala Lys Lys Ile Glu Pro  
 245 250 255

Glu Leu Asp Gly Ser Ala Gln Val Thr Ser His Asp Ala Ser Thr Asn  
 260 265 270



173

Gly Leu Ile Asn Phe Ile Lys Gln Gln Arg Glu Ala Arg Val Gln  
           275                                  280                                  285

&lt;210&gt; 144

&lt;211&gt; 147

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 144

Met Ala Pro Gly Arg Gly Leu Gly His Ala Trp Leu Val Leu Gln Asn  
   1                                  5                                  10                                  15

Gly Arg Ala Cys Pro His Arg Pro Ala Arg Leu Ser Leu Trp Gly Arg  
                                   20                                  25                                  30

Val Cys Phe Pro Ser Arg Gly Leu Gly Ile Arg Thr Leu Leu Glu Thr  
                                   35                                  40                                  45

Phe Leu Gly Val Phe Cys Arg Tyr Leu Lys Glu Ile Ala Gln Pro Thr  
   50                                  55                                  60

Leu Leu Cys Ser Pro Ser Ser His His Ser Cys Leu Glu Pro Trp Ser  
   65                                  70                                  75                                  80

Pro Cys Met Ser Thr Arg Ser Ser Phe Arg Ala Ser Ser Gly Thr Ser  
                                   85                                  90                                  95

Thr Ala Leu Thr Ser Gly Gly Val Glu Leu Gly Lys Gln Leu Ala Lys  
                                   100                                  105                                  110

Lys Ile Glu Pro Glu Leu Asp Gly Ser Ala Gln Val Thr Ser His Asp  
                                   115                                  120                                  125

Ala Ser Thr Asn Gly Leu Ile Asn Phe Ile Lys Gln Gln Arg Glu Ala  
   130                                  135                                  140

Arg Val Gln  
   145

&lt;210&gt; 145

&lt;211&gt; 150

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (9)..(10)

&lt;223&gt; X=any amino acid

174

&lt;400&gt; 145

Ser Gln His Phe Gly Arg Pro Arg Xaa Xaa Asp His Leu Arg Ser Asp  
 1 5 10 15

Gln Ser Gly Gln His Gly Glu Thr Pro Ser Val Pro Lys Ile Gln Lys  
 20 25 30

Pro Ala Gly His Gly Gly Thr Cys Leu Trp Ser Gln Leu Leu Gly Arg  
 35 40 45

Pro Arg Gln Lys Thr Arg Trp Asn Pro Gly Gly Gly Ala Cys Arg Glu  
 50 55 60

Pro Arg Leu Cys His Cys Thr Ala Ala Trp Val Thr Glu Pro Asp Ser  
 65 70 75 80

Ile Ser Thr Thr Asp Ala Leu Thr Leu Gly Val Ser Val Ala Gln Gly  
 85 90 95

Arg Gly Ala His Val Thr Gln Ala Asp Gly Pro Phe Ala Thr Ala Val  
 100 105 110

Asp Glu His Val Ala Leu Val Arg Val Glu Leu Gly Cys Ser Asp Asp  
 115 120 125

Phe Gly Gln Leu Leu His Val Ser Arg Leu Asp Val His Asp Val Lys  
 130 135 140

Ala Ser Ile Cys Asp Phe  
 145 150

&lt;210&gt; 146

&lt;211&gt; 811

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 146

Met Thr Asp Ile Leu Phe Leu Pro Met Trp Ile Ser Asn Gln His Thr  
 1 5 10 15

Pro Ser Ser Pro Gln Gly Asp Gly Gly Ser Ala His Thr Phe Ile Ser  
 20 25 30

Thr Gly Gly Pro Gly Ile Ser Thr Arg Leu His Leu His Arg Gly Met  
 35 40 45

175

Gly Asp Gln His Thr Pro Ser Ser Pro Gln Trp Asp Gly Gly Ser Ala  
 50 55 60

His Ala Phe Ile Ser Thr Gly Gly Trp Gly Met Ser Thr Arg Leu His  
 65 70 75 80

Leu His Arg Gly Met Ala Asp Gln His Thr Pro Ser Ser Pro Gln Gly  
 85 90 95

Asp Gly Gly Ser Ala His Ala Phe Ile Ser Thr Gly Gly Arg Gly Ile  
 100 105 110

Ser Thr Arg Leu His Leu His Arg Arg Thr Gly Asp Gln His Thr Pro  
 115 120 125

Ser Ser Pro Gln Gly Asp Arg Gly Ser Ala His Thr Phe Ile Ser Thr  
 130 135 140

Gly Gly Trp Gly Ile Ser Thr His Leu His Leu His Arg Gly Met Gly  
 145 150 155 160

Asp Gln His Thr Pro Ser Ser Pro Gln Gly Asp Gly Gly Ser Ala His  
 165 170 175

Ala Phe Ile Ser Thr Gly Gly Trp Gly Ile Ser Thr Arg Leu His Leu  
 180 185 190

His Ser Gly Met Ala Asp Gln His Thr Pro Ser Ser Pro Gln Gly Asp  
 195 200 205

Gly Gly Ser Ala His Thr Phe Ile Ser Thr Gly Gly Trp Gly Ile Ser  
 210 215 220

Thr Arg Leu His Leu His Ser Gly Met Ala Asp Gln His Thr Pro Ser  
 225 230 235 240

Ser Pro Gln Gly Asp Gly Gly Ser Ala His Ala Phe Ile Ser Thr Val  
 245 250 255

Gly Arg Gly Ile Ser Thr His Leu His Leu His Arg Gly Thr Gly Asp  
 260 265 270

Gln His Thr Pro Pro Ser Pro Gln Gly His Glu Glu Ala Ala His Thr  
 275 280 285

176

Phe Ile Ser Thr Gly Gly Arg Gly Ile Ser Thr His Leu His Leu His  
 290 295 300

Arg Gly Met Gly Asp Gln His Thr Pro Pro Ser Pro Gln Gly Asp Lys  
 305 310 315 320

Arg Ser Ala His Thr Phe Ile Pro Thr Gly Gly Gln Gly Ile Ser Ile  
 325 330 335

Pro Leu His Leu His Arg Gly Met Gly Asp Gln His Thr Pro Ser Ser  
 340 345 350

Pro Gln Gly Asp Gly Gly Ser Ala Tyr Pro Phe Ile Ser Thr Gly Gly  
 355 360 365

Trp Gly Ile Ser Thr His Leu His Pro His Arg Gly Met Gly Asp Gln  
 370 375 380

His Thr Pro Pro Ser Pro Gln Gly His Glu Glu Ser Ala His Thr Phe  
 385 390 395 400

Ile Ser Thr Gly Arg Arg Gly Ile Ser Thr Pro Leu His Leu His Arg  
 405 410 415

Gly Met Gly Asp Gln His Thr Pro Ser Ser Pro Gln Gly Asp Gly Gly  
 420 425 430

Ser Ala Val His Thr Phe Ile Lys Ile Gly Glu Gln Gly Ile Ser Thr  
 435 440 445

His Leu Tyr Leu His Arg Gly Thr Arg Asp Gln His Thr Pro Pro Ser  
 450 455 460

Pro Gln Gly Met Gly Asp Gln His Thr Pro Ser Ser Pro Gln Gly Asp  
 465 470 475 480

Gly Asp Gln His Thr Pro Ser Ser Pro Gln Gly Asp Gly Gly Ser Thr  
 485 490 495

His Pro Phe Ile Ser Thr Gly Asp Gly Gly Ser Ala His Thr Phe Ile  
 500 505 510

Ser Thr Gly Gly Arg Gly Ile Ser Thr Arg Leu His Val His Arg Gly  
 515 520 525

177

Thr Gly Asp Gln His Thr Pro Ser Ser Ser Gln Gly Asp Gly Gly Ser  
 530 535 540

Ala His Thr Phe Ile Ser Thr Gly Gly Arg Gly Ser Ala His Thr Ile  
 545 550 555 560

Ser Thr Gly Gly Gln Gly Ile Asn Thr Pro Leu His Leu His Met Gly  
 565 570 575

Met Gly Asp Gln His Thr Pro Ser Ser Pro Gln Gly Asp Gly Asp Gln  
 580 585 590

His Thr Pro Pro Ser Pro Gln Gly Arg Gly Gly Leu Ala His Pro Phe  
 595 600 605

Ile Ser Thr Gly Arg Trp Gly Ile Ser Thr His Leu His Leu His Arg  
 610 615 620

Gly Thr Gly Asp Gln His Thr Pro Ser Ser Pro Gln Trp Asp Arg Gly  
 625 630 635 640

Ser Ala Tyr Pro Phe Ile Ser Thr Gly Gly Trp Gly Ser Ala His Thr  
 645 650 655

Phe Ile Ser Thr Glu Glu Met Gly Asp Gln His Ala Pro Ser Ser Pro  
 660 665 670

Gln Gly His Gly Gly Ser Ala His Thr Phe Ile Ser Thr Gly Gly Arg  
 675 680 685

Gly Ile Ser Thr His Leu His Pro Asp Arg Gly Met Arg Asn Gln His  
 690 695 700

Thr Pro Ser Ser Arg Gln Gly Asp Gly Met Gly Asp Gln His Thr Pro  
 705 710 715 720

Pro Ser Pro Gln Gly His Glu Gly Ala Ala His Thr Ser Ile Ser Thr  
 725 730 735

Gly His Arg Gly Ser Ala His Thr Ser Phe Ser Thr Gly Ala Gln Ala  
 740 745 750

Ile Ser Thr Tyr Leu His Leu Asp Arg Val Thr Gly Asp Gln His Thr  
 755 760 765

Pro Pro Ser Pro Gln Gln Gln Glu Glu Ser Thr His Thr Phe Ile Ser

178

770                      775                      780  
 Thr Gly Gly Arg Gly Ile Ser Thr His Leu His Leu His Arg Gly Thr  
 785                      790                      795                      800  
 Gly Ala Arg Leu Pro Thr Pro Leu Gly Asp Thr  
                                  805                      810  
 <210> 147  
 <211> 442  
 <212> PRT  
 <213> Homo sapien  
 <400> 147  
 Phe Arg Val Met Thr Asp Ile Leu Phe Leu Pro Met Trp Ile Ser Asn  
 1                      5                      10                      15  
 Gln His Thr Pro Ser Ser Pro Gln Gly Asp Gly Gly Ser Ala His Thr  
                          20                      25                      30  
 Phe Ile Ser Thr Gly Gly Pro Gly Ile Ser Thr Arg Leu His Leu His  
                  35                      40                      45  
 Arg Gly Met Gly Asp Gln His Thr Pro Ser Ser Pro Gln Trp Asp Gly  
          50                      55                      60  
 Gly Ser Ala His Ala Phe Ile Ser Thr Gly Gly Trp Gly Met Ser Thr  
 65                      70                      75                      80  
 Arg Leu His Leu His Arg Gly Met Ala Asp Gln His Thr Pro Ser Ser  
                          85                      90                      95  
 Pro Gln Gly Asp Gly Gly Ser Ala His Ala Phe Ile Ser Thr Gly Gly  
                  100                      105                      110  
 Arg Gly Ile Ser Thr Arg Leu His Leu His Arg Arg Thr Gly Asp Gln  
                  115                      120                      125  
 His Thr Pro Ser Ser Pro Gln Gly Asp Arg Gly Ser Ala His Thr Phe  
          130                      135                      140  
 Ile Ser Thr Gly Gly Trp Gly Ile Ser Thr His Leu His Leu His Arg  
 145                      150                      155                      160  
 Gly Met Gly Asp Gln His Thr Pro Ser Ser Pro Gln Gly Asp Gly Gly  
                  165                      170                      175

179

Ser Ala His Ala Phe Ile Ser Thr Gly Gly Trp Gly Ile Ser Thr Arg  
 180 185 190

Leu His Leu His Ser Gly Met Ala Asp Gln His Thr Pro Ser Ser Pro  
 195 200 205

Gln Gly Asp Gly Gly Ser Ala His Thr Phe Ile Ser Thr Gly Gly Trp  
 210 215 220

Gly Ile Ser Thr Arg Leu His Leu His Ser Gly Met Ala Asp Gln His  
 225 230 235 240

Thr Pro Ser Ser Pro Gln Gly Asp Gly Gly Ser Ala His Ala Phe Ile  
 245 250 255

Ser Thr Val Gly Arg Gly Ile Ser Thr His Leu His Leu His Arg Gly  
 260 265 270

Thr Gly Asp Gln His Thr Pro Pro Ser Pro Gln Gly His Glu Glu Ala  
 275 280 285

Ala His Thr Phe Ile Ser Thr Gly Gly Arg Gly Ile Ser Thr His Leu  
 290 295 300

His Leu His Arg Gly Met Gly Asp Gln His Thr Pro Pro Ser Pro Gln  
 305 310 315 320

Gly Asp Lys Arg Ser Ala His Thr Phe Ile Pro Thr Gly Gly Gln Gly  
 325 330 335

Ile Ser Ile Pro Leu His Leu His Arg Gly Met Gly Asp Gln His Thr  
 340 345 350

Pro Ser Ser Pro Gln Gly Asp Gly Gly Ser Ala Tyr Pro Phe Ile Ser  
 355 360 365

Thr Gly Gly Trp Gly Ile Ser Thr His Leu His Pro His Arg Gly Met  
 370 375 380

Gly Asp Gln His Thr Pro Pro Ser Pro Gln Gly His Glu Glu Ser Ala  
 385 390 395 400

His Thr Phe Ile Ser Thr Gly Arg Arg Gly Ile Ser Thr Pro Leu His  
 405 410 415

180

Leu His Arg Gly Met Gly Asp Gln His Thr Pro Ser Ser Pro Gln Gly  
                   420                  425                  430

Asp Gly Gly Ser Ala Val His Thr Phe Ile  
           435                  440

&lt;210&gt; 148

&lt;211&gt; 351

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 148

Met Lys Ala Ser Gly Thr Leu Arg Glu Tyr Lys Val Val Gly Arg Cys  
   1                  5                  10                  15

Leu Pro Thr Pro Lys Cys His Thr Pro Pro Leu Tyr Arg Met Arg Ile  
                   20                  25                  30

Phe Ala Pro Asn His Val Val Ala Lys Ser Arg Phe Trp Tyr Phe Val  
           35                  40                  45

Ser Gln Leu Lys Lys Met Lys Lys Ser Ser Gly Glu Ile Val Tyr Cys  
   50                  55                  60

Gly Gln Val Phe Glu Lys Ser Pro Leu Arg Val Lys Asn Phe Gly Ile  
  65                  70                  75                  80

Trp Leu Arg Tyr Asp Ser Arg Ser Gly Thr His Asn Met Tyr Arg Glu  
                   85                  90                  95

Tyr Arg Asp Leu Thr Thr Ala Gly Ala Val Thr Gln Cys Tyr Arg Asp  
                   100                  105                  110

Met Gly Ala Arg His Arg Ala Arg Ala His Ser Ile Gln Ile Met Lys  
  115                  120                  125

Val Glu Glu Ile Ala Ala Ser Lys Cys Arg Arg Pro Ala Val Lys Gln  
  130                  135                  140

Phe His Asp Ser Lys Ile Lys Phe Pro Leu Pro His Arg Val Leu Arg  
  145                  150                  155                  160

Arg Gln His Lys Pro Arg Phe Thr Thr Lys Arg Pro Asn Asn Leu Leu  
                   165                  170                  175

Ser Arg Cys Arg Ala Leu Val Arg Gly Val Pro Pro Asn Lys Leu Arg  
                   180                  185                  190



181

Asn Ala Pro Lys Val Gln Ala Ala Val Pro Asp Asp Phe Lys Asp Phe  
 195 200 205

Ser Leu Leu Asn Glu Glu Ala Arg Tyr Tyr Gln Phe Lys Thr Met Val  
 210 215 220

Arg Arg Ala Trp Ser Ala Gly Thr His Asp Pro Glu Lys Ser Thr Gly  
 225 230 235 240

Asn Arg Asp Gly Glu Arg Leu Asp Ala Lys Ser Ser Ala Arg Arg Trp  
 245 250 255

Ala Lys Arg Asp Arg Thr Thr Arg Arg Ala Leu Pro Ala Glu Glu Glu  
 260 265 270

Tyr His Ser Asn Ala Lys Ala Thr Val Arg Gln Asn Lys Pro Arg Arg  
 275 280 285

His Gln Ser Gly Ala Lys Glu Lys Lys Gln His Asn Glu His Ala Ala  
 290 295 300

Ala Gln Tyr Ala Ala Arg Ser Lys Glu Thr Asp Arg Lys Gln Pro Val  
 305 310 315 320

Gly Asp Asn Gln Gly Glu Thr Lys Pro Pro Gly Arg Lys Arg Glu Gly  
 325 330 335

Glu Glu Arg Thr Ala Gly Pro Asn Lys Glu Arg Asn Ser Arg His  
 340 345 350

<210> 149  
 <211> 223  
 <212> PRT  
 <213> Homo sapien

<220>  
 <221> MISC\_FEATURE  
 <222> (4)..(4)  
 <223> X=any amino acid

<400> 149

Ala Phe Ala Xaa Gly Gly Glu Arg Gly Glu His Ala Met Lys Ala Ser  
 1 5 10 15

Gly Thr Leu Arg Glu Tyr Lys Val Val Gly Arg Cys Leu Pro Thr Pro  
 20 25 30

Lys Cys His Thr Pro Pro Leu Tyr Arg Met Arg Ile Phe Ala Pro Asn  
35 40 45

His Val Val Ala Lys Ser Arg Phe Trp Tyr Phe Val Ser Gln Leu Lys  
50 55 60

Lys Met Lys Lys Ser Ser Gly Glu Ile Val Tyr Cys Gly Gln Val Phe  
65 70 75 80

Glu Lys Ser Pro Leu Arg Val Lys Asn Phe Gly Ile Trp Leu Arg Tyr  
85 90 95

Asp Ser Arg Ser Gly Thr His Asn Met Tyr Arg Glu Tyr Arg Asp Leu  
100 105 110

Thr Thr Ala Gly Ala Val Thr Gln Cys Tyr Arg Asp Met Gly Ala Arg  
115 120 125

His Arg Ala Arg Ala His Ser Ile Gln Ile Met Lys Val Glu Glu Ile  
130 135 140

Ala Ala Ser Lys Cys Arg Arg Pro Ala Val Lys Gln Phe His Asp Ser  
145 150 155 160

Lys Ile Lys Phe Pro Leu Pro His Arg Val Leu Arg Arg Gln His Lys  
165 170 175

Pro Arg Phe Thr Thr Lys Arg Pro Asn Asn Leu Leu Ser Arg Cys Arg  
180 185 190

Ala Leu Val Arg Gly Val Pro Pro Asn Lys Leu Arg Asn Ala Pro Lys  
195 200 205

Val	Gln	Ala	Ala	Val	Pro	Asp	Asp	Phe	Lys	Asp	Phe	Ser	Leu	Leu
210						215					220			

```
<210> 150
<211> 260
<212> PRT
<213> Homo sapien
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**<400> 150**

Thr Ala Val Leu Ser Pro Gly Pro Arg Leu Pro Ser His Ser Ala Arg  
1 5 10 15

183

Cys Ala Cys Glu Gly Leu Ala Ala Leu Gly Thr Gly Gly Ala Ala Arg  
 20 25 30

Gly Val Arg Val Gly Val Arg Glu Gly Ser Thr Gln Asp Leu Arg Thr  
 35 40 45

Leu Leu Trp Gly Arg Thr Lys His Leu Pro Gly Ala Gly Gly Ala Pro  
 50 55 60

Gly Thr Arg Arg Phe Arg Gln Leu Gly Ala Leu Gly Ile Cys Gly Leu  
 65 70 75 80

Arg Pro Gly Asp Gly Leu Gly Gly His Ala His Ala Leu Gly Leu Thr  
 85 90 95

Glu Cys Asp Arg Ala Arg Gly Arg Ala Lys Arg Gly Gly Arg Ala Arg  
 100 105 110

Arg Arg Lys Glu Gly Leu Val Arg Pro Ala Gln Pro Asp Gln Cys Arg  
 115 120 125

Gly Gly Asn Gly Leu Gly Ala Gly Pro Ile Arg Ala Gly Gly Phe Leu  
 130 135 140

Arg Arg Arg Pro Ser Pro Gln Leu Leu Asp Cys Ser Gly Ala Gly Gly  
 145 150 155 160

Thr Asn Thr Trp Arg Phe Phe Arg Arg Gly Glu Asp Phe Leu Arg Ala  
 165 170 175

Gln Arg Ile His Phe Leu His Ile Asn Leu Ser Cys Trp Arg Asp Thr  
 180 185 190

Ala Gly Lys Arg Arg Pro Ile Phe Val Gln Arg Thr Leu Asp Leu Gly  
 195 200 205

Arg Asn Lys Asp Asp Leu Asp Pro Cys Pro His Tyr Leu Glu Phe Ser  
 210 215 220

Met Leu Ala Lys Ile Trp Thr Arg Ala Val Pro Glu Gly Arg Gly Pro  
 225 230 235 240

Trp Arg Glu Ala Pro Val Thr Ala His Pro Gly Val Gly Leu Trp Ala  
 245 250 255

Leu Leu Leu Cys

184

260

&lt;210&gt; 151

&lt;211&gt; 259

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 151

Ser Arg Val Val Ala Arg Pro Arg Leu Pro Ser His Ser Ala Arg Cys  
 1 5 10 15

Ala Cys Glu Gly Leu Ala Ala Leu Gly Thr Gly Gly Ala Ala Arg Gly  
 20 25 30

Val Arg Val Gly Val Arg Glu Gly Ser Thr Gln Asp Leu Arg Thr Leu  
 35 40 45

Leu Trp Gly Arg Thr Lys His Leu Pro Gly Ala Gly Gly Ala Pro Gly  
 50 55 60

Thr Arg Arg Phe Arg Gln Leu Gly Ala Leu Gly Ile Cys Gly Leu Arg  
 65 70 75 80

Pro Gly Asp Gly Leu Gly Gly His Ala His Ala Leu Gly Leu Thr Glu  
 85 90 95

Cys Asp Arg Ala Arg Gly Arg Ala Lys Arg Gly Gly Arg Ala Arg Arg  
 100 105 110

Arg Lys Glu Gly Leu Val Arg Pro Ala Gln Pro Asp Gln Cys Arg Gly  
 115 120 125

Gly Asn Gly Leu Gly Ala Gly Pro Ile Arg Ala Gly Gly Phe Leu Arg  
 130 135 140

Arg Arg Pro Ser Pro Gln Leu Leu Asp Cys Ser Gly Ala Gly Gly Thr  
 145 150 155 160

Asn Thr Trp Arg Phe Phe Arg Arg Gly Glu Asp Phe Leu Arg Ala Gln  
 165 170 175

Arg Ile His Phe Leu His Ile Asn Leu Ser Cys Trp Arg Asp Thr Ala  
 180 185 190

Gly Lys Arg Arg Pro Ile Phe Val Gln Arg Thr Leu Asp Leu Gly Arg  
 195 200 205

185

Asn Lys Asp Asp Leu Asp Pro Cys Pro His Tyr Leu Glu Phe Ser Met  
 210 215 220

Leu Ala Lys Ile Trp Thr Arg Ala Val Pro Glu Gly Arg Gly Pro Trp  
 225 230 235 240

Arg Glu Ala Pro Val Thr Ala His Pro Gly Val Gly Leu Trp Ala Leu  
 245 250 255

Leu Leu Cys

<210> 152  
 <211> 650  
 <212> PRT  
 <213> Homo sapien

<400> 152

Met Gln Gln Asp Gly Leu Gly Val Gly Thr Arg Asn Gly Ser Gly Lys  
 1 5 10 15

Gly Arg Ser Val His Pro Ser Trp Pro Trp Cys Ala Pro Arg Pro Leu  
 20 25 30

Arg Tyr Phe Gly Arg Asp Ala Arg Ala Arg Arg Ala Gln Thr Ala Ala  
 35 40 45

Met Ala Leu Leu Ala Gly Gly Leu Ser Arg Gly Leu Gly Ser His Pro  
 50 55 60

Ala Ala Ala Gly Arg Asp Ala Val Val Phe Val Trp Leu Leu Leu Ser  
 65 70 75 80

Thr Trp Cys Thr Ala Pro Ala Arg Ala Ile Gln Val Thr Val Ser Asn  
 85 90 95

Pro Tyr His Val Val Ile Leu Phe Gln Pro Val Thr Leu Pro Cys Thr  
 100 105 110

Tyr Gln Met Thr Ser Thr Pro Thr Gln Pro Ile Val Ile Trp Lys Tyr  
 115 120 125

Lys Ser Phe Cys Arg Asp Arg Ile Ala Asp Ala Phe Ser Pro Ala Ser  
 130 135 140

Val Asp Asn Gln Leu Asn Ala Gln Leu Ala Ala Gly Asn Pro Gly Tyr

186

145		150		155		160									
Asn	Pro	Tyr	Val	Glu	Cys	Gln	Asp	Ser	Val	Arg	Thr	Val	Arg	Val	Val
				165					170					175	
Ala	Thr	Lys	Gln	Gly	Asn	Ala	Val	Thr	Leu	Gly	Asp	Tyr	Tyr	Gln	Gly
			180					185		.			190		
Arg	Arg	Ile	Thr	Ile	Thr	Gly	Asn	Ala	Asp	Leu	Thr	Phe	Asp	Gln	Thr
		195					200					205			
Ala	Trp	Gly	Asp	Ser	Gly	Val	Tyr	Tyr	Cys	Ser	Val	Val	Ser	Ala	Gln
	210					215					220				
Asp	Leu	Gln	Gly	Asn	Asn	Glu	Ala	Tyr	Ala	Glu	Leu	Ile	Val	Leu	Gly
225					230					235					240
Arg	Thr	Ser	Gly	Val	Ala	Glu	Leu	Leu	Pro	Gly	Phe	Gln	Ala	Gly	Pro
				245					250					255	
Ile	Glu	Asp	Trp	Leu	Phe	Val	Val	Val	Val	Cys	Leu	Ala	Ala	Phe	Leu
			260					265					270		
Ile	Phe	Leu	Leu	Leu	Gly	Ile	Cys	Trp	Cys	Gln	Cys	Cys	Pro	His	Thr
		275					280					285			
Cys	Cys	Cys	Tyr	Val	Arg	Cys	Pro	Cys	Cys	Pro	Asp	Lys	Cys	Cys	Cys
	290					295					300				
Pro	Glu	Ala	Leu	Tyr	Ala	Ala	Gly	Lys	Ala	Ala	Thr	Ser	Gly	Val	Pro
305					310					315					320
Ser	Ile	Tyr	Ala	Pro	Ser	Thr	Tyr	Ala	His	Leu	Ser	Pro	Ala	Lys	Thr
				325					330					335	
Pro	Pro	Pro	Pro	Ala	Met	Ile	Pro	Met	Gly	Pro	Ala	Tyr	Asn	Gly	Tyr
				340				345					350		
Pro	Gly	Gly	Tyr	Pro	Gly	Asp	Val	Asp	Arg	Ser	Ser	Ser	Ala	Gly	Gly
		355					360					365			
Gln	Gly	Ser	Tyr	Val	Pro	Leu	Leu	Arg	Asp	Thr	Asp	Ser	Ser	Val	Ala
	370					375					380				
Ser	Glu	Val	Arg	Ser	Gly	Tyr	Arg	Ile	Gln	Ala	Ser	Gln	Gln	Asp	Asp
385					390					395					400

187

Ser Met Arg Val Leu Tyr Tyr Met Glu Lys Glu Leu Ala Asn Phe Asp  
 405 410 415

Pro Ser Arg Pro Gly Pro Pro Ser Gly Arg Val Glu Arg Ala Met Ser  
 420 425 430

Glu Val Thr Ser Leu His Glu Asp Asp Trp Arg Ser Arg Pro Ser Arg  
 435 440 445

Gly Pro Ala Leu Thr Pro Ile Arg Asp Glu Glu Trp Gly Gly His Ser  
 450 455 460

Pro Arg Ser Pro Arg Gly Trp Asp Gln Glu Pro Ala Arg Glu Gln Ala  
 465 470 475 480

Gly Gly Gly Trp Arg Ala Arg Arg Pro Arg Ala Arg Ser Val Asp Ala  
 485 490 495

Leu Asp Asp Leu Thr Pro Pro Ser Thr Ala Glu Ser Gly Ser Arg Ser  
 500 505 510

Pro Thr Ser Asn Gly Gly Arg Arg Ser Arg Ala Tyr Met Pro Pro Arg  
 515 520 525

Ser Arg Ser Arg Asp Asp Leu Tyr Asp Gln Asp Asp Ser Arg Asp Phe  
 530 535 540

Pro Arg Ser Arg Asp Pro His Tyr Asp Asp Phe Arg Ser Arg Glu Arg  
 545 550 555 560

Pro Pro Ala Asp Pro Arg Ser His His His Arg Thr Arg Asp Pro Arg  
 565 570 575

Asp Asn Gly Ser Arg Ser Gly Asp Leu Pro Tyr Asp Gly Arg Leu Leu  
 580 585 590

Glu Glu Ala Val Arg Lys Lys Gly Ser Glu Glu Arg Arg Arg Pro His  
 595 600 605

Lys Glu Glu Glu Glu Ala Tyr Tyr Pro Pro Ala Pro Pro Pro Tyr  
 610 615 620

Ser Glu Thr Asp Ser Gln Ala Ser Arg Glu Arg Arg Leu Lys Lys Asn  
 625 630 635 640

188

Leu Ala Leu Ser Arg Glu Ser Leu Val Val  
                                 645                                650

<210> 153  
 <211> 388  
 <212> PRT  
 <213> Homo sapien

<400> 153

Met Ser Lys Glu Ala Leu Gln Arg Arg Gly Arg Leu Gly Lys Glu Val  
 1                                5                                10                                15

Gln Ala Gln Val Pro Pro Glu Pro Asn Gly Tyr Gly Ala Ala Trp Leu  
                                 20                                25                                30

Leu Pro His Pro Pro Ser Pro Val Asp Cys Val Leu Thr Val Tyr Ala  
                                 35                                40                                45

Ala Gly Lys Ala Ala Thr Ser Gly Val Pro Ser Ile Tyr Ala Pro Ser  
                                 50                                55                                60

Thr Tyr Ala His Leu Ser Pro Ala Lys Thr Pro Pro Pro Pro Ala Met  
 65                                70                                75                                80

Ile Pro Met Gly Pro Ala Tyr Asn Gly Tyr Pro Gly Gly Tyr Pro Gly  
                                 85                                90                                95

Asp Val Asp Arg Ser Ser Ser Ala Gly Gly Gln Gly Ser Tyr Val Pro  
                                 100                                105                                110

Leu Leu Arg Asp Thr Asp Ser Ser Val Ala Ser Glu Val Arg Ser Gly  
                                 115                                120                                125

Tyr Arg Ile Gln Ala Ser Gln Gln Asp Asp Ser Met Arg Val Leu Tyr  
                                 130                                135                                140

Tyr Met Glu Lys Glu Leu Ala Asn Phe Asp Pro Ser Arg Pro Gly Pro  
 145                                150                                155                                160

Pro Ser Gly Arg Val Glu Arg Ala Met Ser Glu Val Thr Ser Leu His  
                                 165                                170                                175

Glu Asp Asp Trp Arg Ser Arg Pro Ser Arg Gly Pro Ala Leu Thr Pro  
                                 180                                185                                190

Ile Arg Asp Glu Glu Trp Gly Gly His Ser Pro Arg Ser Pro Arg Gly



[illegible]

190

Gly Gln Thr Cys Leu Glu Ser Gln Gly Arg Thr Arg Ser Ser Asn Pro  
                   20                  25                  30

Pro Thr Ala Pro Ser Arg Leu Pro Ala Arg Pro Thr Ser His Ser Leu  
           35                  40                  45

Gly Ser His Gly Ala Asp Arg Pro Arg Arg Glu His Thr Pro Pro Val  
       50                  55                  60

Cys Ala Leu Ser Arg Ser Gln Arg Pro Arg Gly His Arg Ala Met His  
   65                  70                  75                  80

Ala Pro Asn

<210> 155  
 <211> 379  
 <212> PRT  
 <213> Homo sapien

<400> 155

Ala Ser His Leu Leu Pro Gln Ala Pro Thr Ala Ser Pro Cys Val Leu  
   1                  5                  10                  15

Gln Glu Thr Tyr Lys Leu Pro His Arg Leu Ile Glu Lys Lys Arg Arg  
           20                  25                  30

Asp Arg Ile Asn Glu Cys Ile Ala Gln Leu Lys Asp Leu Leu Pro Glu  
       35                  40                  45

His Leu Lys Leu Thr Thr Leu Gly His Leu Glu Lys Ala Val Val Leu  
       50                  55                  60

Glu Leu Thr Leu Lys His Val Lys Ala Leu Thr Asn Leu Ile Asp Gln  
   65                  70                  75                  80

Gln Gln Gln Lys Ile Ile Ala Leu Gln Ser Gly Leu Gln Ala Gly Glu  
           85                  90                  95

Leu Ser Gly Arg Asn Val Glu Thr Gly Gln Glu Met Phe Cys Ser Gly  
           100                  105                  110

Phe Gln Thr Cys Ala Arg Glu Val Leu Gln Tyr Leu Ala Lys His Glu  
       115                  120                  125

Asn Thr Arg Asp Leu Lys Ser Ser Gln Leu Val Thr His Leu His Arg

191

130		135		140
Val Val Ser Glu Leu Leu Gln Gly Gly Thr Ser Arg Lys Pro Ser Asp				
145		150		155 160
Pro Ala Pro Lys Val Met Asp Phe Lys Glu Lys Pro Ser Ser Pro Ala				
	165		170	175
Lys Gly Ser Glu Gly Pro Gly Lys Asn Cys Val Pro Val Ile Gln Arg				
	180		185	190
Thr Phe Ala His Ser Ser Gly Glu Gln Ser Gly Ser Asp Thr Asp Thr				
	195		200	205
Asp Ser Gly Tyr Gly Gly Glu Ser Glu Lys Gly Asp Leu Arg Ser Glu				
	210		215	220
Gln Pro Cys Phe Lys Ser Asp His Gly Arg Arg Phe Thr Met Gly Glu				
	225		230	235 240
Arg Ile Gly Ala Ile Lys Gln Glu Ser Glu Glu Pro Pro Thr Lys Lys				
	245		250	255
Asn Arg Met Gln Leu Ser Asp Asp Glu Gly His Phe Thr Ser Ser Asp				
	260		265	270
Leu Ile Ser Ser Pro Phe Leu Gly Pro His Pro His Gln Pro Pro Phe				
	275		280	285
Cys Leu Pro Phe Tyr Leu Ile Pro Pro Ser Ala Thr Ala Tyr Leu Pro				
	290		295	300
Met Leu Glu Lys Cys Trp Tyr Pro Thr Ser Val Pro Val Leu Tyr Pro				
	305		310	315 320
Gly Leu Asn Ala Ser Ala Ala Ala Leu Ser Ser Phe Met Asn Pro Asp				
	325		330	335
Lys Ile Ser Ala Pro Leu Leu Met Pro Gln Arg Leu Pro Ser Pro Leu				
	340		345	350
Pro Ala His Pro Ser Val Asp Ser Ser Val Leu Leu Gln Ala Leu Lys				
	355		360	365
Pro Ile Pro Pro Leu Asn Leu Glu Thr Lys Asp				
	370		375	

192

<210> 156  
 <211> 379  
 <212> PRT  
 <213> Homo sapien

<400> 156

Ala Ser His Leu Leu Pro Gln Ala Pro Thr Ala Ser Pro Cys Val Leu  
 1 5 10 15

Gln Glu Thr Tyr Lys Leu Pro His Arg Leu Ile Glu Lys Lys Arg Arg  
 20 25 30

Asp Arg Ile Asn Glu Cys Ile Ala Gln Leu Lys Asp Leu Leu Pro Glu  
 35 40 45

His Leu Lys Leu Thr Thr Leu Gly His Leu Glu Lys Ala Val Val Leu  
 50 55 60

Glu Leu Thr Leu Lys His Val Lys Ala Leu Thr Asn Leu Ile Asp Gln  
 65 70 75 80

Gln Gln Gln Lys Ile Ile Ala Leu Gln Ser Gly Leu Gln Ala Gly Glu  
 85 90 95

Leu Ser Gly Arg Asn Val Glu Thr Gly Gln Glu Met Phe Cys Ser Gly  
 100 105 110

Phe Gln Thr Cys Ala Arg Glu Val Leu Gln Tyr Leu Ala Lys His Glu  
 115 120 125

Asn Thr Arg Asp Leu Lys Ser Ser Gln Leu Val Thr His Leu His Arg  
 130 135 140

Val Val Ser Glu Leu Leu Gln Gly Gly Thr Ser Arg Lys Pro Ser Asp  
 145 150 155 160

Pro Ala Pro Lys Val Met Asp Phe Lys Glu Lys Pro Ser Ser Pro Ala  
 165 170 175

Lys Gly Ser Glu Gly Pro Gly Lys Asn Cys Val Pro Val Ile Gln Arg  
 180 185 190

Thr Phe Ala His Ser Ser Gly Glu Gln Ser Gly Ser Asp Thr Asp Thr  
 195 200 205

193

Asp Ser Gly Tyr Gly Gly Glu Ser Glu Lys Gly Asp Leu Arg Ser Glu  
 210 215 220

Gln Pro Cys Phe Lys Ser Asp His Gly Arg Arg Phe Thr Met Gly Glu  
 225 230 235 240

Arg Ile Gly Ala Ile Lys Gln Glu Ser Glu Glu Pro Pro Thr Lys Lys  
 245 250 255

Asn Arg Met Gln Leu Ser Asp Asp Glu Gly His Phe Thr Ser Ser Asp  
 260 265 270

Leu Ile Ser Ser Pro Phe Leu Gly Pro His Pro His Gln Pro Pro Phe  
 275 280 285

Cys Leu Pro Phe Tyr Leu Ile Pro Pro Ser Ala Thr Ala Tyr Leu Pro  
 290 295 300

Met Leu Glu Lys Cys Trp Tyr Pro Thr Ser Val Pro Val Leu Tyr Pro  
 305 310 315 320

Gly Leu Asn Ala Ser Ala Ala Ala Leu Ser Ser Phe Met Asn Pro Asp  
 325 330 335

Lys Ile Ser Ala Pro Leu Leu Met Pro Gln Arg Leu Pro Ser Pro Leu  
 340 345 350

Pro Ala His Pro Ser Val Asp Ser Ser Val Leu Leu Gln Ala Leu Lys  
 355 360 365

Pro Ile Pro Pro Leu Asn Leu Glu Thr Lys Asp  
 370 375

<210> 157

<211> 358

<212> PRT

<213> Homo sapien

<400> 157

Met Lys Pro Gly Glu Gly Gly Gln Val Ala Pro Ser Leu Pro Gly Ser  
 1 5 10 15

Gly Gln Thr Cys Leu Glu Ser Gln Gly Arg Thr Arg Ser Ser Asn Pro  
 20 25 30

Pro Thr Ala Pro Ser Arg Leu Pro Ala Leu Pro His Phe Ser Phe Thr  
 35 40 45

194

Trp Leu Ala Arg Arg Arg Gln Thr Ala Gln Gly Ala His Thr Ala Ser  
 50 55 60

Leu Cys Ala Glu Ser Glu Pro Glu Ala Ala Gly Thr Pro Gly His Ala  
 65 70 75 80

Arg Pro Gln Leu Lys Leu His Leu Lys Ala Glu Asp Ser Ser Ser Pro  
 85 90 95

Gly Asp Phe Lys Glu Leu Arg Leu Arg Gly Thr Ser Ala Glu Arg Pro  
 100 105 110

Pro Lys Pro Ser Pro Gly Gln Ser Ser Ser Arg Arg Ser Ala Ser Ala  
 115 120 125

Asp Arg Ser Ala Gln Trp Pro Arg Leu Ala Ala Pro Trp Ser Gly Ser  
 130 135 140

Pro Ala Arg Asn His Pro Pro Pro Ala Cys Pro Lys His Arg Asp Trp  
 145 150 155 160

Ser Thr Glu Thr Tyr Gln Gly Lys Leu Ala Leu Leu Gly Pro Ser Ser  
 165 170 175

Leu Asn Cys Ser Pro Met Leu Cys Ala Thr Leu Asn Leu Glu Gln Leu  
 180 185 190

Arg Ala His Arg Glu Val Leu Ala Arg Gln Asn Ala Cys Ser Arg Ala  
 195 200 205

Gln Ala Val Thr Thr Leu Pro Gly Leu Ser Ser Cys Arg Met Tyr Pro  
 210 215 220

Ala His Met Tyr Gln Val Tyr Lys Ser Arg Arg Gly Ile Lys Arg Ser  
 225 230 235 240

Glu Asp Ser Lys Val Ser Lys Cys Thr Pro Arg Asp Pro Ala Leu Ser  
 245 250 255

Pro Ser Arg Ala Leu Ser Phe Gln Glu Lys Phe Ser Arg Phe Glu Val  
 260 265 270

Gly Glu Gly Met Gln Gly Val Gly Ser Val Pro Leu Leu Ser Asp Leu  
 275 280 285

195

Glu Lys Lys Gly Gln Thr Met Val Leu Gly Ala Thr Leu Leu Leu Cys  
 290 295 300

Ser Ser Ala Gly Leu Leu Leu Arg Gly Trp Glu Asp Arg Leu Leu Ile  
 305 310 315 320

Ser Phe Pro Lys Arg Pro Pro Pro Pro Arg Ala Ser Cys Arg Arg Pro  
 325 330 335

Thr Asn Cys Arg Thr Gly Ser Ser Arg Lys Arg Asp Val Thr Gly Leu  
 340 345 350

Thr Ser Ala Ser Pro Ser  
 355

<210> 158  
 <211> 329  
 <212> PRT  
 <213> Homo sapien

<400> 158

Leu Gln Pro Thr His Arg Ser Leu Pro Pro Pro Arg Pro Pro His Phe  
 1 5 10 15

Ser Phe Thr Trp Leu Ala Arg Arg Arg Gln Thr Ala Gln Gly Ala His  
 20 25 30

Thr Ala Ser Leu Cys Ala Glu Ser Glu Pro Glu Ala Ala Gly Thr Pro  
 35 40 45

Gly His Ala Arg Pro Gln Leu Lys Leu His Leu Lys Ala Glu Asp Ser  
 50 55 60

Ser Ser Pro Gly Asp Phe Lys Glu Leu Arg Leu Arg Gly Thr Ser Ala  
 65 70 75 80

Glu Arg Pro Pro Lys Pro Ser Pro Gly Gln Ser Ser Ser Arg Arg Ser  
 85 90 95

Ala Ser Ala Asp Arg Ser Ala Gln Trp Pro Arg Leu Ala Ala Pro Trp  
 100 105 110

Ser Gly Ser Pro Ala Arg Asn His Pro Pro Pro Ala Cys Pro Lys His  
 115 120 125

Arg Asp Trp Ser Thr Glu Thr Tyr Gln Gly Lys Leu Ala Leu Leu Gly

196															
130				135				140							
Pro 145	Ser	Ser	Leu	Asn	Cys 150	Ser	Pro	Met	Leu	Cys 155	Ala	Thr	Leu	Asn	Leu 160
Glu	Gln	Leu	Arg	Ala 165	His	Arg	Glu	Val	Leu 170	Ala	Arg	Gln	Asn	Ala 175	Cys
Ser	Arg	Ala	Gln 180	Ala	Val	Thr	Thr	Leu 185	Pro	Gly	Leu	Ser	Ser 190	Cys	Arg
Met	Tyr	Pro 195	Ala	His	Met	Tyr	Gln 200	Val	Tyr	Lys	Ser	Arg 205	Arg	Gly	Ile
Lys	Arg	Ser 210	Glu	Asp	Ser	Lys 215	Val	Ser	Lys	Cys	Thr 220	Pro	Arg	Asp	Pro
Ala 225	Leu	Ser	Pro	Ser	Arg 230	Ala	Leu	Ser	Phe	Gln 235	Glu	Lys	Phe	Ser	Arg 240
Phe	Glu	Val	Gly	Glu 245	Gly	Met	Gln	Gly	Val 250	Gly	Ser	Val	Pro	Leu 255	Leu
Ser	Asp	Leu	Glu 260	Lys	Lys	Gly	Gln	Thr 265	Met	Val	Leu	Gly	Ala 270	Thr	Leu
Leu	Leu	Cys 275	Ser	Ser	Ala	Gly	Leu 280	Leu	Leu	Arg	Gly	Trp 285	Glu	Asp	Arg
Leu	Leu	Ile	Ser	Phe	Pro	Lys 295	Arg	Pro	Pro	Pro	Pro 300	Arg	Ala	Ser	Cys
Arg 305	Arg	Pro	Thr	Asn	Cys 310	Arg	Thr	Gly	Ser	Ser 315	Arg	Lys	Arg	Asp	Val 320
Thr	Gly	Leu	Thr	Ser	Ala	Ser	Pro	Ser							
325															
<210> 159 <211> 425 <212> PRT <213> Homo sapien  <400> 159															
Cys 1	Arg	Gln	Glu	Arg	Ala	Val	Ala	Pro	Ala	Arg	Arg	Ala	Met	Glu	Arg
5 10 15															



197

Ile Pro Ser Ala Gln Pro Pro Pro Ala Cys Leu Pro Lys Ala Pro Gly  
                   20                                  25                                  30

Leu Glu His Gly Asp Leu Pro Gly Met Tyr Pro Ala His Met Tyr Gln  
           35                                  40                                  45

Val Tyr Lys Ser Arg Arg Gly Ile Lys Arg Ser Glu Asp Ser Lys Glu  
           50                                  55                                  60

Thr Tyr Lys Leu Pro His Arg Leu Ile Glu Lys Lys Arg Arg Asp Arg  
   65                                  70                                  75                                  80

Ile Asn Glu Cys Ile Ala Gln Leu Lys Asp Leu Leu Pro Glu His Leu  
                                   85                                  90                                  95

Lys Leu Thr Thr Leu Gly His Leu Glu Lys Ala Val Val Leu Glu Leu  
                                   100                                  105                                  110

Thr Leu Lys His Val Lys Ala Leu Thr Asn Leu Ile Asp Gln Gln Gln  
           115                                  120                                  125

Gln Lys Ile Ile Ala Leu Gln Ser Gly Leu Gln Ala Gly Glu Leu Ser  
           130                                  135                                  140

Gly Arg Asn Val Glu Thr Gly Gln Glu Met Phe Cys Ser Gly Phe Gln  
   145                                  150                                  155                                  160

Thr Cys Ala Arg Glu Val Leu Gln Tyr Leu Ala Lys His Glu Asn Thr  
                                   165                                  170                                  175

Arg Asp Leu Lys Ser Ser Gln Leu Val Thr His Leu His Arg Val Val  
                                   180                                  185                                  190

Ser Glu Leu Leu Gln Gly Gly Thr Ser Arg Lys Pro Ser Asp Pro Ala  
           195                                  200                                  205

Pro Lys Val Met Asp Phe Lys Glu Lys Pro Ser Ser Pro Ala Lys Gly  
           210                                  215                                  220

Ser Glu Gly Pro Gly Lys Asn Cys Val Pro Val Ile Gln Arg Thr Phe  
   225                                  230                                  235                                  240

Ala His Ser Ser Gly Glu Gln Ser Gly Ser Asp Thr Asp Thr Asp Ser  
                                   245                                  250                                  255

198

Gly Tyr Gly Gly Glu Ser Glu Lys Gly Asp Leu Arg Ser Glu Gln Pro  
 260 265 270

Cys Phe Lys Ser Asp His Gly Arg Arg Phe Thr Met Gly Glu Arg Ile  
 275 280 285

Gly Ala Ile Lys Gln Glu Ser Glu Glu Pro Pro Thr Lys Lys Asn Arg  
 290 295 300

Met Gln Leu Ser Asp Asp Glu Gly His Phe Thr Ser Ser Asp Leu Ile  
 305 310 315 320

Ser Ser Pro Phe Leu Gly Pro His Pro His Gln Pro Pro Phe Cys Leu  
 325 330 335

Pro Phe Tyr Leu Ile Pro Pro Ser Ala Thr Ala Tyr Leu Pro Met Leu  
 340 345 350

Glu Lys Cys Trp Tyr Pro Thr Ser Val Pro Val Leu Tyr Pro Gly Leu  
 355 360 365

Asn Ala Ser Ala Ala Ala Leu Ser Ser Phe Met Asn Pro Asp Lys Ile  
 370 375 380

Ser Ala Pro Leu Leu Met Pro Gln Arg Leu Pro Ser Pro Leu Pro Ala  
 385 390 395 400

His Pro Ser Val Asp Ser Ser Val Leu Leu Gln Ala Leu Lys Pro Ile  
 405 410 415

Pro Pro Leu Asn Leu Glu Thr Lys Asp  
 420 425

&lt;210&gt; 160

&lt;211&gt; 425

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 160

Cys Arg Gln Glu Arg Ala Val Ala Pro Ala Arg Arg Ala Met Glu Arg  
 1 5 10 15

Ile Pro Ser Ala Gln Pro Pro Pro Ala Cys Leu Pro Lys Ala Pro Gly  
 20 25 30

Leu Glu His Gly Asp Leu Pro Gly Met Tyr Pro Ala His Met Tyr Gln  
 35 40 45

199

Val Tyr Lys Ser Arg Arg Gly Ile Lys Arg Ser Glu Asp Ser Lys Glu  
 50 55 60

Thr Tyr Lys Leu Pro His Arg Leu Ile Glu Lys Lys Arg Arg Asp Arg  
 65 70 75 80

Ile Asn Glu Cys Ile Ala Gln Leu Lys Asp Leu Leu Pro Glu His Leu  
 85 90 95

Lys Leu Thr Thr Leu Gly His Leu Glu Lys Ala Val Val Leu Glu Leu  
 100 105 110

Thr Leu Lys His Val Lys Ala Leu Thr Asn Leu Ile Asp Gln Gln Gln  
 115 120 125

Gln Lys Ile Ile Ala Leu Gln Ser Gly Leu Gln Ala Gly Glu Leu Ser  
 130 135 140

Gly Arg Asn Val Glu Thr Gly Gln Glu Met Phe Cys Ser Gly Phe Gln  
 145 150 155 160

Thr Cys Ala Arg Glu Val Leu Gln Tyr Leu Ala Lys His Glu Asn Thr  
 165 170 175

Arg Asp Leu Lys Ser Ser Gln Leu Val Thr His Leu His Arg Val Val  
 180 185 190

Ser Glu Leu Leu Gln Gly Gly Thr Ser Arg Lys Pro Ser Asp Pro Ala  
 195 200 205

Pro Lys Val Met Asp Phe Lys Glu Lys Pro Ser Ser Pro Ala Lys Gly  
 210 215 220

Ser Glu Gly Pro Gly Lys Asn Cys Val Pro Val Ile Gln Arg Thr Phe  
 225 230 235 240

Ala His Ser Ser Gly Glu Gln Ser Gly Ser Asp Thr Asp Thr Asp Ser  
 245 250 255

Gly Tyr Gly Gly Glu Ser Glu Lys Gly Asp Leu Arg Ser Glu Gln Pro  
 260 265 270

Cys Phe Lys Ser Asp His Gly Arg Arg Phe Thr Met Gly Glu Arg Ile  
 275 280 285

200

Gly Ala Ile Lys Gln Glu Ser Glu Glu Pro Pro Thr Lys Lys Asn Arg  
 290 295 300

Met Gln Leu Ser Asp Asp Glu Gly His Phe Thr Ser Ser Asp Leu Ile  
 305 310 315 320

Ser Ser Pro Phe Leu Gly Pro His Pro His Gln Pro Pro Phe Cys Leu  
 325 330 335

Pro Phe Tyr Leu Ile Pro Pro Ser Ala Thr Ala Tyr Leu Pro Met Leu  
 340 345 350

Glu Lys Cys Trp Tyr Pro Thr Ser Val Pro Val Leu Tyr Pro Gly Leu  
 355 360 365

Asn Ala Ser Ala Ala Ala Leu Ser Ser Phe Met Asn Pro Asp Lys Ile  
 370 375 380

Ser Ala Pro Leu Leu Met Pro Gln Arg Leu Pro Ser Pro Leu Pro Ala  
 385 390 395 400

His Pro Ser Val Asp Ser Ser Val Leu Leu Gln Ala Leu Lys Pro Ile  
 405 410 415

Pro Pro Leu Asn Leu Glu Thr Lys Asp  
 420 425

<210> 161  
 <211> 64  
 <212> PRT  
 <213> Homo sapien

<400> 161

His Val Leu Glu Leu Leu Pro Gly Gln Leu Glu Gln Asp Asp Ser Gly  
 1 5 10 15

Pro Gly Val Thr Ser Gly Gln Cys Ala Gly Val Lys Asp Leu Thr Gly  
 20 25 30

Leu Arg Arg Asp Leu Arg Phe Arg Pro Gly Ser Gly Ala Val Lys Leu  
 35 40 45

Pro Val Glu Leu Ala Leu Ala Phe Arg Asn Ser Ser Ser Phe Cys Arg  
 50 55 60

<210> 162

201

<211> 111  
 <212> PRT  
 <213> Homo sapien

<400> 162

Asn Phe Lys Gln Ala Val Ser Thr Gly Leu Asn Ser Pro His Pro His  
 1 5 10 15

Gln Pro Pro Phe Cys Leu Pro Phe Tyr Leu Ile Pro Pro Ser Ala Thr  
 20 25 30

Ala Tyr Leu Pro Met Leu Glu Lys Cys Trp Tyr Pro Thr Ser Val Pro  
 35 40 45

Val Leu Tyr Pro Gly Leu Asn Ala Ser Ala Ala Ala Leu Ser Ser Phe  
 50 55 60

Met Asn Pro Asp Lys Ile Ser Ala Pro Leu Leu Met Pro Gln Arg Leu  
 65 70 75 80

Pro Ser Pro Leu Pro Ala His Pro Ser Val Asp Ser Ser Val Leu Leu  
 85 90 95

Gln Ala Leu Lys Pro Ile Pro Pro Leu Asn Leu Glu Thr Lys Asp  
 100 105 110

<210> 163  
 <211> 145  
 <212> PRT  
 <213> Homo sapien

<400> 163

Met Gly Lys Ser Arg Cys Pro Glu Gly Phe Pro Ile Ala Glu Val Phe  
 1 5 10 15

Thr Leu Lys Pro Leu Glu Phe Gly Lys Pro Asn Thr Leu Val Cys Phe  
 20 25 30

Val Ser Asn Leu Phe Pro Pro Met Leu Thr Val Asn Trp Gln His His  
 35 40 45

Ser Val Pro Val Glu Gly Phe Gly Pro Thr Phe Val Ser Ala Val Asp  
 50 55 60

Gly Leu Ser Phe Gln Ala Phe Ser Tyr Leu Asn Phe Thr Pro Glu Pro  
 65 70 75 80

202

Ser Asp Ile Phe Ser Cys Ile Val Thr His Glu Ile Asp Arg Tyr Thr  
                                     85                                    90                                    95

Ala Ile Ala Tyr Trp Val Pro Arg Asn Ala Leu Pro Ser Asp Leu Leu  
                                     100                                    105                                    110

Glu Asn Val Leu Cys Gly Val Ala Phe Gly Leu Gly Val Leu Gly Ile  
                                     115                                    120                                    125

Ile Val Gly Ile Val Leu Ile Ile Tyr Phe Arg Lys Pro Cys Ser Gly  
                                     130                                    135                                    140

Asp  
 145

<210> 164  
 <211> 270  
 <212> PRT  
 <213> Homo sapien

<400> 164

Leu Leu Pro Thr Val Trp Gln Glu Gly Met Gly His Glu Gln Asn Gln  
 1                                    5                                    10                                    15

Gly Ala Ala Leu Leu Gln Met Leu Pro Leu Leu Trp Leu Leu Pro His  
                                     20                                    25                                    30

Ser Trp Ala Val Pro Glu Ala Pro Thr Pro Met Trp Pro Asp Asp Leu  
                                     35                                    40                                    45

Gln Asn His Thr Phe Leu His Thr Val Tyr Cys Gln Asp Gly Ser Pro  
                                     50                                    55                                    60

Ser Val Gly Leu Ser Glu Ala Tyr Asp Glu Asp Gln Leu Phe Phe Phe  
 65                                    70                                    75                                    80

Asp Phe Ser Gln Asn Thr Arg Val Pro Arg Leu Pro Glu Phe Ala Asp  
                                     85                                    90                                    95

Trp Ala Gln Glu Gln Gly Asp Ala Pro Ala Ile Leu Phe Asp Lys Glu  
                                     100                                    105                                    110

Phe Cys Glu Trp Met Ile Gln Gln Ile Gly Pro Lys Leu Asp Gly Lys  
                                     115                                    120                                    125

Ile Pro Val Ser Arg Gly Phe Pro Ile Ala Glu Val Phe Thr Leu Lys  
                                     130                                    135                                    140

203

Pro Leu Glu Phe Gly Lys Pro Asn Thr Leu Val Cys Phe Val Ser Asn  
 145 150 155 160

Leu Phe Pro Pro Met Leu Thr Val Asn Trp Gln His His Ser Val Pro  
 165 170 175

Val Glu Gly Phe Gly Pro Thr Phe Val Ser Ala Val Asp Gly Leu Ser  
 180 185 190

Phe Gln Ala Phe Ser Tyr Leu Asn Phe Thr Pro Glu Pro Ser Asp Ile  
 195 200 205

Phe Ser Cys Ile Val Thr His Glu Ile Asp Arg Tyr Thr Ala Ile Ala  
 210 215 220

Tyr Trp Val Pro Arg Asn Ala Leu Pro Ser Asp Leu Leu Glu Asn Val  
 225 230 235 240

Leu Cys Gly Val Ala Phe Gly Leu Gly Val Leu Gly Ile Ile Val Gly  
 245 250 255

Ile Val Leu Ile Ile Tyr Phe Arg Lys Pro Cys Ser Gly Asp  
 260 265 270

<210> 165  
 <211> 180  
 <212> PRT  
 <213> Homo sapien

<400> 165

His Ser Gly Leu Phe Leu Cys Leu Phe Val Ala Glu Leu Glu Pro Ala  
 1 5 10 15

Ile Leu Phe Asp Lys Glu Phe Cys Glu Trp Met Ile Gln Gln Ile Gly  
 20 25 30

Pro Lys Leu Asp Gly Lys Ile Pro Val Ser Arg Gly Phe Pro Ile Ala  
 35 40 45

Glu Val Phe Thr Leu Lys Pro Leu Glu Phe Gly Lys Pro Asn Thr Leu  
 50 55 60

Val Cys Phe Val Ser Asn Leu Phe Pro Pro Met Leu Thr Val Asn Trp  
 65 70 75 80

204

Gln His His Ser Val Pro Val Glu Gly Phe Gly Pro Thr Phe Val Ser  
85 90 95

Ala Val Asp Gly Leu Ser Phe Gln Ala Phe Ser Tyr Leu Asn Phe Thr  
100 105 110

Pro Glu Pro Ser Asp Ile Phe Ser Cys Ile Val Thr His Glu Ile Asp  
115 120 125

Arg Tyr Thr Ala Ile Ala Tyr Trp Val Pro Arg Asn Ala Leu Pro Ser  
130 135 140

Asp Leu Leu Glu Asn Val Leu Cys Gly Val Ala Phe Gly Leu Gly Val  
145 150 155 160

Leu Gly Ile Ile Val Gly Ile Val Leu Ile Ile Tyr Phe Arg Lys Pro  
165 170 175

Cys Ser Gly Asp  
180

<210> 166  
<211> 796  
<212> PRT  
<213> Homo sapien

<400> 166

Met Ser Leu Asp Asp Asn Leu Ser Gly Thr Ser Gly Met Glu Val Asp  
1 5 10 15

Asp Arg Val Ser Ala Leu Glu Gln Arg Leu Gln Leu Gln Glu Asp Glu  
20 25 30

Leu Ala Val Leu Lys Ala Ala Leu Ala Asp Ala Leu Arg Arg Leu Arg  
35 40 45

Ala Cys Glu Glu Gln Gly Ala Ala Leu Arg Ala Arg Gly Thr Pro Lys  
50 55 60

Gly Arg Ala Pro Pro Arg Leu Gly Thr Thr Ala Ser Val Cys Gln Leu  
65 70 75 80

Leu Lys Gly Leu Pro Thr Arg Thr Pro Leu Asn Gly Ser Gly Pro Pro  
85 90 95

Arg Arg Val Gly Gly Tyr Ala Thr Ser Pro Ser Ser Pro Lys Lys Glu  
100 105 110



205

Ala Thr Ser Gly Arg Ser Ser Val Arg Arg Tyr Leu Ser Pro Glu Arg  
 115 120 125

Leu Ala Ser Val Arg Arg Glu Asp Pro Arg Ser Arg Thr Thr Ser Ser  
 130 135 140

Ser Ser Asn Cys Ser Ala Lys Lys Glu Gly Lys Thr Lys Glu Val Ile  
 145 150 155 160

Phe Ser Val Glu Asp Gly Ser Val Lys Met Phe Leu Arg Gly Arg Pro  
 165 170 175

Val Pro Met Met Ile Pro Asp Glu Leu Ala Pro Thr Tyr Ser Leu Asp  
 180 185 190

Thr Arg Ser Glu Leu Pro Ser Cys Arg Leu Lys Leu Glu Trp Val Tyr  
 195 200 205

Gly Tyr Arg Gly Arg Asp Cys Arg Ala Asn Leu Tyr Leu Leu Pro Thr  
 210 215 220

Gly Glu Ile Val Tyr Phe Val Ala Ser Val Ala Val Leu Tyr Ser Val  
 225 230 235 240

Glu Glu Gln Arg Gln Arg His Tyr Leu Gly His Asn Asp Asp Ile Lys  
 245 250 255

Cys Leu Ala Ile His Pro Asp Met Val Thr Ile Ala Thr Gly Gln Val  
 260 265 270

Ala Gly Thr Thr Lys Glu Gly Lys Pro Leu Pro Pro His Val Arg Ile  
 275 280 285

Trp Asp Ser Val Ser Leu Ser Thr Leu His Val Leu Gly Leu Gly Val  
 290 295 300

Phe Asp Arg Ala Val Cys Cys Val Gly Phe Ser Lys Ser Asn Gly Gly  
 305 310 315 320

Asn Leu Leu Cys Ala Val Asp Glu Ser Asn Asp His Met Leu Ser Val  
 325 330 335

Trp Asp Trp Ala Lys Glu Thr Lys Val Val Asp Val Lys Cys Ser Asn  
 340 345 350

206

Glu Ala Val Leu Val Ala Thr Phe His Pro Thr Asp Pro Thr Val Leu  
 355 360 365

Ile Thr Cys Gly Lys Ser His Ile Tyr Phe Trp Thr Leu Glu Gly Gly  
 370 375 380

Ser Leu Ser Lys Arg Gln Gly Leu Phe Glu Lys His Glu Lys Pro Lys  
 385 390 395 400

Tyr Val Leu Cys Val Thr Phe Leu Glu Gly Gly Asp Val Val Thr Gly  
 405 410 415

Asp Ser Gly Gly Asn Leu Tyr Val Trp Gly Lys Gly Gly Asn Arg Ile  
 420 425 430

Thr Gln Ala Val Leu Gly Ala His Asp Gly Gly Val Phe Gly Leu Cys  
 435 440 445

Ala Leu Arg Asp Gly Thr Leu Val Ser Gly Gly Gly Arg Asp Arg Arg  
 450 455 460

Val Val Leu Trp Gly Ser Asp Tyr Ser Lys Leu Gln Glu Val Glu Val  
 465 470 475 480

Pro Glu Asp Phe Gly Pro Val Arg Thr Val Ala Glu Gly His Gly Asp  
 485 490 495

Thr Leu Tyr Val Gly Thr Thr Arg Asn Ser Ile Leu Gln Gly Ser Val  
 500 505 510

His Thr Gly Phe Ser Leu Leu Val Gln Gly His Val Glu Glu Leu Trp  
 515 520 525

Gly Leu Ala Thr His Pro Ser Arg Ala Gln Phe Val Thr Cys Gly Gln  
 530 535 540

Asp Lys Leu Val His Leu Trp Ser Ser Asp Ser His Gln Pro Leu Trp  
 545 550 555 560

Ser Arg Ile Ile Glu Asp Pro Ala Arg Ser Ala Gly Phe His Pro Ser  
 565 570 575

Gly Ser Val Leu Ala Val Gly Thr Val Thr Gly Arg Trp Leu Leu Leu  
 580 585 590

207

Asp Thr Glu Thr His Asp Leu Val Ala Ile His Thr Asp Gly Asn Glu  
 595 600 605

Gln Ile Ser Val Val Ser Phe Ser Pro Asp Gly Ala Tyr Leu Ala Val  
 610 615 620

Gly Ser His Asp Asn Leu Val Tyr Val Tyr Thr Val Asp Gln Gly Gly  
 625 630 635 640

Arg Lys Val Ser Arg Leu Gly Lys Cys Ser Gly His Ser Ser Phe Ile  
 645 650 655

Thr His Leu Asp Trp Ala Gln Asp Ser Ser Cys Phe Val Thr Asn Ser  
 660 665 670

Gly Asp Tyr Glu Ile Leu Tyr Trp Asp Pro Ala Thr Cys Lys Gln Ile  
 675 680 685

Thr Ser Ala Asp Ala Val Arg Asn Met Glu Trp Ala Thr Ala Thr Cys  
 690 695 700

Val Leu Gly Phe Gly Val Phe Gly Ile Trp Ser Glu Gly Ala Asp Gly  
 705 710 715 720

Thr Asp Ile Asn Ala Val Ala Arg Ser His Asp Gly Lys Leu Leu Ala  
 725 730 735

Ser Ala Asp Asp Phe Gly Lys Val His Leu Phe Ser Tyr Pro Cys Cys  
 740 745 750

Gln Pro Arg Ala Leu Ser His Lys Tyr Gly Gly His Ser Ser His Val  
 755 760 765

Thr Asn Val Ala Phe Leu Trp Asp Asp Ser Met Ala Leu Thr Thr Gly  
 770 775 780

Gly Lys Asp Thr Ser Val Leu Gln Trp Arg Val Val  
 785 790 795

<210> 167  
 <211> 627  
 <212> PRT  
 <213> Homo sapien  
 <400> 167

Met Phe Leu Arg Gly Arg Pro Val Pro Met Met Ile Pro Asp Glu Leu  
 1 5 10 15

208

Ala Pro Thr Tyr Ser Leu Asp Thr Arg Ser Glu Leu Pro Ser Cys Arg  
 20 25 30

Leu Lys Leu Glu Trp Val Tyr Gly Tyr Arg Gly Arg Asp Cys Arg Ala  
 35 40 45

Asn Leu Tyr Leu Leu Pro Thr Gly Glu Ile Val Tyr Phe Val Ala Ser  
 50 55 60

Val Ala Val Leu Tyr Ser Val Glu Glu Gln Arg Gln Arg His Tyr Leu  
 65 70 75 80

Gly His Asn Asp Asp Ile Lys Cys Leu Ala Ile His Pro Asp Met Val  
 85 90 95

Thr Ile Ala Thr Gly Gln Val Ala Gly Thr Thr Lys Glu Gly Lys Pro  
 100 105 110

Leu Pro Pro His Val Arg Ile Trp Asp Ser Val Ser Leu Ser Thr Leu  
 115 120 125

His Val Leu Gly Leu Gly Val Phe Asp Arg Ala Val Cys Cys Val Gly  
 130 135 140

Phe Ser Lys Ser Asn Gly Gly Asn Leu Leu Cys Ala Val Asp Glu Ser  
 145 150 155 160

Asn Asp His Met Leu Ser Val Trp Asp Trp Ala Lys Glu Thr Lys Val  
 165 170 175

Val Asp Val Lys Cys Ser Asn Glu Ala Val Leu Val Ala Thr Phe His  
 180 185 190

Pro Thr Asp Pro Thr Val Leu Ile Thr Cys Gly Lys Ser His Ile Tyr  
 195 200 205

Phe Trp Thr Leu Glu Gly Gly Ser Leu Ser Lys Arg Gln Gly Leu Phe  
 210 215 220

Glu Lys His Glu Lys Pro Lys Tyr Val Leu Cys Val Thr Phe Leu Glu  
 225 230 235 240

Gly Gly Asp Val Val Thr Gly Asp Ser Gly Gly Asn Leu Tyr Val Trp  
 245 250 255

209

Gly Lys Gly Gly Asn Arg Ile Thr Gln Ala Val Leu Gly Ala His Asp  
 260 265 270

Gly Gly Val Phe Gly Leu Cys Ala Leu Arg Asp Gly Thr Leu Val Ser  
 275 280 285

Gly Gly Gly Arg Asp Arg Arg Val Val Leu Trp Gly Ser Asp Tyr Ser  
 290 295 300

Lys Leu Gln Glu Val Glu Val Pro Glu Asp Phe Gly Pro Val Arg Thr  
 305 310 315 320

Val Ala Glu Gly His Gly Asp Thr Leu Tyr Val Gly Thr Thr Arg Asn  
 325 330 335

Ser Ile Leu Gln Gly Ser Val His Thr Gly Phe Ser Leu Leu Val Gln  
 340 345 350

Gly His Val Glu Glu Leu Trp Gly Leu Ala Thr His Pro Ser Arg Ala  
 355 360 365

Gln Phe Val Thr Cys Gly Gln Asp Lys Leu Val His Leu Trp Ser Ser  
 370 375 380

Asp Ser His Gln Pro Leu Trp Ser Arg Ile Ile Glu Asp Pro Ala Arg  
 385 390 395 400

Ser Ala Gly Phe His Pro Ser Gly Ser Val Leu Ala Val Gly Thr Val  
 405 410 415

Thr Gly Arg Trp Leu Leu Leu Asp Thr Glu Thr His Asp Leu Val Ala  
 420 425 430

Ile His Thr Asp Gly Asn Glu Gln Ile Ser Val Val Ser Phe Ser Pro  
 435 440 445

Asp Gly Ala Tyr Leu Ala Val Gly Ser His Asp Asn Leu Val Tyr Val  
 450 455 460

Tyr Thr Val Asp Gln Gly Gly Arg Lys Val Ser Arg Leu Gly Lys Cys  
 465 470 475 480

Ser Gly His Ser Ser Phe Ile Thr His Leu Asp Trp Ala Gln Asp Ser  
 485 490 495

210

Ser Cys Phe Val Thr Asn Ser Gly Asp Tyr Glu Ile Leu Tyr Trp Asp  
 500 505 510

Pro Ala Thr Cys Lys Gln Ile Thr Ser Ala Asp Ala Val Arg Asn Met  
 515 520 525

Glu Trp Ala Thr Ala Thr Cys Val Leu Gly Phe Gly Val Phe Gly Ile  
 530 535 540

Trp Ser Glu Gly Ala Asp Gly Thr Asp Ile Asn Ala Val Ala Arg Ser  
 545 550 555 560

His Asp Gly Lys Leu Leu Ala Ser Ala Asp Asp Phe Gly Lys Val His  
 565 570 575

Leu Phe Ser Tyr Pro Cys Cys Gln Pro Arg Ala Leu Ser His Lys Tyr  
 580 585 590

Gly Gly His Ser Ser His Val Thr Asn Val Ala Phe Leu Trp Asp Asp  
 595 600 605

Ser Met Ala Leu Thr Thr Gly Gly Lys Asp Thr Ser Val Leu Gln Trp  
 610 615 620

Arg Val Val  
 625

<210> 168  
 <211> 627  
 <212> PRT  
 <213> Homo sapien

<400> 168

Met Phe Leu Arg Gly Arg Pro Val Pro Met Met Ile Pro Asp Glu Leu  
 1 5 10 15

Ala Pro Thr Tyr Ser Leu Asp Thr Arg Ser Glu Leu Pro Ser Cys Arg  
 20 25 30

Leu Lys Leu Glu Trp Val Tyr Gly Tyr Arg Gly Arg Asp Cys Arg Ala  
 35 40 45

Asn Leu Tyr Leu Leu Pro Thr Gly Glu Ile Val Tyr Phe Val Ala Ser  
 50 55 60

Val Ala Val Leu Tyr Ser Val Glu Glu Gln Arg Gln Arg His Tyr Leu  
 65 70 75 80

211

Gly His Asn Asp Asp Ile Lys Cys Leu Ala Ile His Pro Asp Met Val  
85 90 95

Thr Ile Ala Thr Gly Gln Val Ala Gly Thr Thr Lys Glu Gly Lys Pro  
100 105 110

Leu Pro Pro His Val Arg Ile Trp Asp Ser Val Ser Leu Ser Thr Leu  
115 120 125

His Val Leu Gly Leu Gly Val Phe Asp Arg Ala Val Cys Cys Val Gly  
130 135 140

Phe Ser Lys Ser Asn Gly Gly Asn Leu Leu Cys Ala Val Asp Glu Ser  
145 150 155 160

Asn Asp His Met Leu Ser Val Trp Asp Trp Ala Lys Glu Thr Lys Val  
165 170 175

Val Asp Val Lys Cys Ser Asn Glu Ala Val Leu Val Ala Thr Phe His  
180 185 190

Pro Thr Asp Pro Thr Val Leu Ile Thr Cys Gly Lys Ser His Ile Tyr  
195 200 205

Phe Trp Thr Leu Glu Gly Gly Ser Leu Ser Lys Arg Gln Gly Leu Phe  
210 215 220

Glu Lys His Glu Lys Pro Lys Tyr Val Leu Cys Val Thr Phe Leu Glu  
225 230 235 240

Gly Gly Asp Val Val Thr Gly Asp Ser Gly Gly Asn Leu Tyr Val Trp  
245 250 255

Gly Lys Gly Gly Asn Arg Ile Thr Gln Ala Val Leu Gly Ala His Asp  
260 265 270

Gly Gly Val Phe Gly Leu Cys Ala Leu Arg Asp Gly Thr Leu Val Ser  
275 280 285

Gly Gly Gly Arg Asp Arg Arg Val Val Leu Trp Gly Ser Asp Tyr Ser  
290 295 300

Lys Leu Gln Glu Val Glu Val Pro Glu Asp Phe Gly Pro Val Arg Thr  
305 310 315 320

212

Val Ala Glu Gly His Gly Asp Thr Leu Tyr Val Gly Thr Thr Arg Asn  
 325 330 335

Ser Ile Leu Gln Gly Ser Val His Thr Gly Phe Ser Leu Leu Val Gln  
 340 345 350

Gly His Val Glu Glu Leu Trp Gly Leu Ala Thr His Pro Ser Arg Ala  
 355 360 365

Gln Phe Val Thr Cys Gly Gln Asp Lys Leu Val His Leu Trp Ser Ser  
 370 375 380

Asp Ser His Gln Pro Leu Trp Ser Arg Ile Ile Glu Asp Pro Ala Arg  
 385 390 395 400

Ser Ala Gly Phe His Pro Ser Gly Ser Val Leu Ala Val Gly Thr Val  
 405 410 415

Thr Gly Arg Trp Leu Leu Leu Asp Thr Glu Thr His Asp Leu Val Ala  
 420 425 430

Ile His Thr Asp Gly Asn Glu Gln Ile Ser Val Val Ser Phe Ser Pro  
 435 440 445

Asp Gly Ala Tyr Leu Ala Val Gly Ser His Asp Asn Leu Val Tyr Val  
 450 455 460

Tyr Thr Val Asp Gln Gly Gly Arg Lys Val Ser Arg Leu Gly Lys Cys  
 465 470 475 480

Ser Gly His Ser Ser Phe Ile Thr His Leu Asp Trp Ala Gln Asp Ser  
 485 490 495

Ser Cys Phe Val Thr Asn Ser Gly Asp Tyr Glu Ile Leu Tyr Trp Asp  
 500 505 510

Pro Ala Thr Cys Lys Gln Ile Thr Ser Ala Asp Ala Val Arg Asn Met  
 515 520 525

Glu Trp Ala Thr Ala Thr Cys Val Leu Gly Phe Gly Val Phe Gly Ile  
 530 535 540

Trp Ser Glu Gly Ala Asp Gly Thr Asp Ile Asn Ala Val Ala Arg Ser  
 545 550 555 560



His Asp Gly Lys Leu Leu Ala Ser Ala Asp Asp Phe Gly Lys Val His  
565 570 575

Leu Phe Ser Tyr Pro Cys Cys Gln Pro Arg Ala Leu Ser His Lys Tyr  
580 585 590

Gly Gly His Ser Ser His Val Thr Asn Val Ala Phe Leu Trp Asp Asp  
595 600 605

Ser Met Ala Leu Thr Thr Gly Gly Lys Asp Thr Ser Val Leu Gln Trp  
610 615 620

Arg Val Val  
625

```
<210> 169
<211> 483
<212> PRT
<213> Homo sapien
```

<400> 169

Met Leu Glu Arg Arg Ala Leu Leu Trp Gln Arg Glu Ala Gly Pro Gly  
1 5 10 15

Trp Gly Asp Arg Ala Arg Ala Gly Thr Gly Gly Ala Gly Gly Gly Cys  
20 25 30

Gly Gly Ala Met Ala Glu Arg Gly Pro Ala Phe Cys Gly Leu Tyr Asp  
35 40 45

Thr Ser Ser Leu Leu Arg Tyr Cys Asn Asp Asp Asn Leu Ser Gly Thr  
50 55 60

Ser Gly Met Glu Val Asp Asp Arg Val Ser Ala Leu Glu Gln Arg Leu  
65 70 75 80

Gln Leu Gln Glu Asp Glu Leu Ala Val Leu Lys Ala Ala Leu Ala Asp  
85 90 95

Ala Leu Arg Arg Leu Arg Ala Cys Glu Glu Gln Gly Ala Ala Leu Arg  
100 105 110

Ala Arg Gly Thr Pro Lys Gly Arg Ala Pro Pro Arg Leu Gly Thr Thr  
115 120 125

Ala Ser Val Cys Gln Leu Leu Lys Gly Leu Pro Thr Arg Thr Pro Leu  
130 135 140

214

Asn Gly Ser Gly Pro Pro Arg Arg Val Gly Gly Tyr Ala Thr Ser Pro  
 145 150 155 160

Ser Ser Pro Lys Lys Glu Ala Thr Ser Gly Arg Ser Ser Val Arg Arg  
 165 170 175

Tyr Leu Ser Pro Glu Arg Leu Ala Ser Val Arg Arg Glu Asp Pro Arg  
 180 185 190

Ser Arg Thr Thr Ser Ser Ser Ser Asn Cys Ser Ala Lys Lys Glu Gly  
 195 200 205

Lys Thr Lys Glu Val Ile Phe Ser Val Glu Asp Gly Ser Val Lys Met  
 210 215 220

Phe Leu Arg Gly Arg Pro Val Pro Met Met Ile Pro Asp Glu Leu Ala  
 225 230 235 240

Pro Thr Tyr Ser Leu Asp Thr Arg Ser Glu Leu Pro Ser Cys Arg Leu  
 245 250 255

Lys Leu Glu Trp Val Tyr Gly Tyr Arg Gly Arg Asp Cys Arg Ala Asn  
 260 265 270

Leu Tyr Leu Leu Pro Thr Gly Glu Ile Val Tyr Phe Val Ala Ser Val  
 275 280 285

Ala Val Leu Tyr Ser Val Glu Glu Gln Arg Gln Arg His Tyr Leu Gly  
 290 295 300

His Asn Asp Asp Ile Lys Cys Leu Ala Ile His Pro Asp Met Val Thr  
 305 310 315 320

Ile Ala Thr Gly Gln Val Ala Gly Thr Thr Lys Glu Gly Lys Pro Leu  
 325 330 335

Pro Pro His Val Arg Ile Trp Asp Ser Val Ser Leu Ser Thr Leu His  
 340 345 350

Val Leu Gly Leu Gly Val Phe Asp Arg Ala Val Cys Cys Val Gly Phe  
 355 360 365

Ser Lys Ser Asn Gly Gly Asn Leu Leu Cys Ala Val Asp Glu Ser Asn  
 370 375 380

215

Asp His Met Leu Ser Val Trp Asp Trp Ala Lys Glu Thr Lys Val Val  
 385 390 395 400

Asp Val Lys Cys Ser Asn Glu Ala Val Leu Val Ala Thr Phe His Pro  
 405 410 415

Thr Asp Pro Thr Val Leu Ile Thr Cys Gly Lys Ser His Ile Tyr Phe  
 420 425 430

Trp Thr Leu Glu Gly Gly Ser Leu Ser Lys Arg Gln Gly Leu Phe Glu  
 435 440 445

Lys His Glu Lys Pro Lys Tyr Val Leu Cys Val Thr Phe Leu Glu Gly  
 450 455 460

Gly Asp Val Val Thr Gly Asp Ser Gly Gly Asn Leu Tyr Val Trp Gly  
 465 470 475 480

Lys Gly Pro

<210> 170  
 <211> 605  
 <212> PRT  
 <213> Homo sapien

<400> 170

Met Ser Ser Phe Gly Ala Gly Lys Thr Lys Glu Val Ile Phe Ser Val  
 1 5 10 15

Glu Asp Gly Ser Val Lys Met Phe Leu Arg Gly Arg Pro Val Pro Met  
 20 25 30

Met Ile Pro Asp Glu Leu Ala Pro Thr Tyr Ser Leu Asp Thr Arg Ser  
 35 40 45

Glu Leu Pro Ser Cys Arg Leu Lys Leu Glu Trp Val Tyr Gly Tyr Arg  
 50 55 60

Gly Arg Asp Cys Arg Ala Asn Leu Tyr Leu Leu Pro Thr Gly Glu Ile  
 65 70 75 80

Val Tyr Phe Val Ala Ser Val Ala Val Leu Tyr Ser Val Glu Glu Gln  
 85 90 95

Arg Gln Arg His Tyr Leu Gly His Asn Asp Asp Ile Lys Cys Leu Ala

216

100	105	110
Ile His Pro Asp Met Val Thr 115	Ile Ala Thr Gly Gln 120	Val Ala Gly Thr 125
Thr Lys Glu Gly Lys Pro Leu 130	Pro Pro His Val Arg 135 140	Ile Trp Asp Ser
Val Ser Leu Ser Thr Leu His 145 150	Val Leu Gly Leu Gly 155	Val Phe Asp Arg 160
Ala Val Cys Cys Val Gly Phe 165	Ser Lys Ser Asn Gly 170	Gly Asn Leu Leu 175
Cys Ala Val Asp Glu Ser Asn 180	Asp His Met Leu Ser 185	Val Trp Asp Trp 190
Ala Lys Glu Thr Lys Val Val 195	Asp Val Lys Cys Ser 200	Asn Glu Ala Val 205
Leu Val Ala Thr Phe His 210	Pro Thr Asp Pro Thr 215 220	Val Leu Ile Thr Cys
Gly Lys Ser His Ile Tyr Phe 225 230	Trp Thr Leu Glu Gly 235	Gly Ser Leu Ser 240
Lys Arg Gln Gly Leu Phe Glu 245	Lys His Glu Lys Pro 250	Lys Tyr Val Leu 255
Cys Val Thr Phe Leu Glu Gly 260	Gly Asp Val Val Thr 265	Gly Asp Ser Gly 270
Gly Asn Leu Tyr Val Trp Gly 275	Lys Gly Gly Asn Arg 280	Ile Thr Gln Ala 285
Val Leu Gly Ala His Asp Gly 290 295	Gly Val Phe Gly Leu 300	Cys Ala Leu Arg
Asp Gly Thr Leu Val Ser Gly 305 310	Gly Gly Arg Asp Arg 315	Arg Val Val Leu 320
Trp Gly Ser Asp Tyr Ser Lys 325	Leu Gln Glu Val Glu 330	Val Pro Glu Asp 335
Phe Gly Pro Val Arg Thr Val 340	Ala Glu Gly His Gly 345	Asp Thr Leu Tyr 350

217

Val Gly Thr Thr Arg Asn Ser Ile Leu Gln Gly Ser Val His Thr Gly  
 355 360 365

Phe Ser Leu Leu Val Gln Asp Pro Ala Arg Ser Ala Gly Phe His Pro  
 370 375 380

Ser Gly Ser Val Leu Ala Val Gly Thr Val Thr Gly Arg Trp Leu Leu  
 385 390 395 400

Leu Asp Thr Glu Thr His Asp Leu Val Ala Ile His Thr Asp Gly Asn  
 405 410 415

Glu Gln Ile Ser Val Val Ser Phe Ser Pro Asp Gly Ala Tyr Leu Ala  
 420 425 430

Val Gly Ser His Asp Asn Leu Val Tyr Val Tyr Thr Val Asp Gln Gly  
 435 440 445

Gly Arg Lys Val Ser Arg Leu Gly Lys Cys Ser Gly His Ser Ser Phe  
 450 455 460

Ile Thr His Leu Asp Trp Ala Gln Asp Ser Ser Cys Phe Val Thr Asn  
 465 470 475 480

Ser Gly Asp Tyr Glu Ile Leu Tyr Trp Asp Pro Ala Thr Cys Lys Gln  
 485 490 495

Ile Thr Ser Ala Asp Ala Val Arg Asn Met Glu Trp Ala Thr Ala Thr  
 500 505 510

Cys Val Leu Gly Phe Gly Val Phe Gly Ile Trp Ser Glu Gly Ala Asp  
 515 520 525

Gly Thr Asp Ile Asn Ala Val Ala Arg Ser His Asp Gly Lys Leu Leu  
 530 535 540

Ala Ser Ala Asp Asp Phe Gly Lys Val His Leu Phe Ser Tyr Pro Cys  
 545 550 555 560

Cys Gln Pro Arg Ala Leu Ser His Lys Tyr Gly Gly His Ser Ser His  
 565 570 575

Val Thr Asn Val Ala Phe Leu Trp Asp Asp Ser Met Ala Leu Thr Thr  
 580 585 590

218

Gly Gly Lys Asp Thr Ser Val Leu Gln Trp Arg Val Val  
           595                                600                                605

&lt;210&gt; 171

&lt;211&gt; 495

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 171

Met Ser Ser Phe Gly Ala Gly Lys Thr Lys Glu Val Ile Phe Ser Val  
   1                                5                                10                                15

Glu Asp Gly Ser Val Lys Met Phe Leu Arg Gly Arg Pro Val Pro Met  
                                 20                                25                                30

Met Ile Pro Asp Glu Leu Ala Pro Thr Tyr Ser Leu Asp Thr Arg Ser  
                                 35                                40                                45

Glu Leu Pro Ser Cys Arg Leu Lys Leu Glu Trp Val Tyr Gly Tyr Arg  
   50                                55                                60

Gly Arg Asp Cys Arg Ala Asn Leu Tyr Leu Leu Pro Thr Gly Glu Ile  
   65                                70                                75                                80

Val Tyr Phe Val Ala Ser Val Ala Val Leu Tyr Ser Val Glu Glu Gln  
                                 85                                90                                95

Arg Gln Arg His Tyr Leu Gly His Asn Asp Asp Ile Lys Cys Leu Ala  
                                 100                                105                                110

Ile His Pro Asp Met Val Thr Ile Ala Thr Gly Gln Val Ala Gly Thr  
                                 115                                120                                125

Thr Lys Glu Gly Lys Pro Leu Pro Pro His Val Arg Ile Trp Asp Ser  
   130                                135                                140

Val Ser Leu Ser Thr Leu His Val Leu Gly Leu Gly Val Phe Asp Arg  
   145                                150                                155                                160

Ala Val Cys Cys Val Gly Phe Ser Lys Ser Asn Gly Gly Asn Leu Leu  
                                 165                                170                                175

Cys Ala Val Asp Glu Ser Asn Asp His Met Leu Ser Val Trp Asp Trp  
                                 180                                185                                190

Ala Lys Glu Thr Lys Val Val Asp Val Lys Cys Ser Asn Glu Ala Val

219

195		200		205
Leu Val Ala Thr Phe His Pro Thr Asp Pro Thr Val Leu Ile Thr Cys				
210		215		220
Gly Lys Ser His Ile Tyr Phe Trp Thr Leu Glu Gly Gly Ser Leu Ser				
225		230		235 240
Lys Arg Gln Gly Leu Phe Glu Lys His Glu Lys Pro Lys Tyr Val Leu				
	245		250	255
Cys Val Thr Phe Leu Glu Gly Gly Asp Val Val Thr Gly Asp Ser Gly				
	260		265	270
Gly Asn Leu Tyr Val Trp Gly Lys Gly Gly Asn Arg Ile Thr Gln Ala				
	275		280	285
Val Leu Gly Ala His Asp Gly Gly Val Phe Gly Leu Cys Ala Leu Arg				
	290		295	300
Asp Gly Thr Leu Val Ser Gly Gly Gly Arg Asp Arg Arg Val Val Leu				
305		310		315 320
Trp Gly Ser Asp Tyr Ser Lys Leu Gln Glu Val Glu Val Pro Glu Asp				
	325		330	335
Phe Gly Pro Val Arg Thr Val Ala Glu Gly His Gly Asp Thr Leu Tyr				
	340		345	350
Val Gly Thr Thr Arg Asn Ser Ile Leu Gln Gly Ser Val His Thr Gly				
	355		360	365
Phe Ser Leu Leu Val Gln Gly His Val Glu Glu Leu Trp Gly Leu Ala				
	370		375	380
Thr His Pro Ser Arg Ala Gln Phe Val Thr Cys Gly Gln Asp Lys Leu				
385		390		395 400
Val His Leu Trp Ser Ser Asp Ser His Gln Pro Leu Trp Ser Arg Ile				
	405		410	415
Ile Glu Asp Pro Ala Arg Ser Ala Gly Phe His Pro Ser Gly Ser Val				
	420		425	430
Leu Ala Val Gly Thr Val Thr Gly Arg Trp Leu Leu Leu Asp Thr Glu				
	435		440	445

220

Thr His Asp Leu Val Ala Ile His Thr Asp Gly Asn Glu Gln Ile Ser  
450 455 460

Val Val Ser Phe Ser Pro Gly Pro Phe Gln Phe Tyr His Pro Pro Gly  
465 470 475 480

Leu Gly Pro Gly Gln Gln Leu Leu Cys His Gln Leu Arg Gly Leu  
485 490 495

<210> 172

<211> 536

<212> PRT

<213> Homo sapien

<400> 172

Ile Gly Arg Gly Arg Pro Gly Gln Val Ala Gly Thr Thr Lys Glu Gly  
1 5 10 15

Lys Pro Leu Pro Pro His Val Arg Ile Trp Asp Ser Val Ser Leu Ser  
20 25 30

Thr Leu His Val Leu Gly Leu Gly Val Phe Asp Arg Ala Val Cys Cys  
35 40 45

Val Gly Phe Ser Lys Ser Cys Ser Asn Glu Ala Val Leu Val Ala Thr  
50 55 60

Phe His Pro Thr Asp Pro Thr Val Leu Ile Thr Cys Gly Lys Ser His  
65 70 75 80

Ile Tyr Phe Trp Thr Leu Glu Gly Gly Ser Leu Ser Lys Arg Gln Gly  
85 90 95

Leu Phe Glu Lys His Glu Lys Pro Lys Tyr Val Leu Cys Val Thr Phe  
100 105 110

Leu Glu Gly Gly Asp Val Val Thr Gly Asp Ser Gly Gly Asn Leu Tyr  
115 120 125

Val Trp Gly Lys Gly Gly Asn Arg Ile Thr Gln Ala Val Leu Gly Ala  
130 135 140

His Asp Gly Gly Val Phe Gly Leu Cys Ala Leu Arg Asp Gly Thr Leu  
145 150 155 160



Val	Ser	Gly	Gly	Gly	Arg	Asp	Arg	Arg	Val	Val	Leu	Trp	Gly	Ser	Asp	
				165					170						175	
Tyr	Ser	Lys	Leu	Gln	Glu	Val	Glu	Val	Pro	Glu	Asp	Phe	Gly	Pro	Val	
			180					185					190			
Arg	Thr	Val	Ala	Glu	Gly	His	Gly	Asp	Thr	Leu	Tyr	Val	Gly	Thr	Thr	
		195					200					205				
Arg	Asn	Ser	Ile	Leu	Gln	Gly	Ser	Val	His	Thr	Gly	Phe	Ser	Leu	Leu	
	210		.			215					220					
Val	Gln	Asp	Pro	Ala	Thr	Lys	Ser	Leu	Thr	Pro	Ser	Thr	Ala	Glu	Gly	
225					230					235					240	
Pro	Gln	Ala	Pro	Ala	Pro	Thr	Val	Leu	Pro	Pro	Ala	Thr	Leu	Ile	Gly	
				245					250					255		
Gly	Gly	Thr	Leu	Gln	Gly	His	Val	Glu	Glu	Leu	Trp	Gly	Leu	Ala	Thr	
			260					265					270			
His	Pro	Ser	Arg	Ala	Gln	Phe	Val	Thr	Cys	Gly	Gln	Asp	Lys	Leu	Val	
		275					280					285				
His	Leu	Trp	Ser	Ser	Asp	Ser	His	Gln	Pro	Leu	Trp	Ser	Arg	Ile	Ile	
	290					295					300					
Glu	Asp	Pro	Ala	Arg	Ser	Ala	Gly	Phe	His	Pro	Ser	Gly	Ser	Val	Leu	
305					310					315					320	
Ala	Val	Gly	Thr	Val	Thr	Gly	Arg	Trp	Leu	Leu	Leu	Asp	Thr	Glu	Thr	
				325					330					335		
His	Asp	Leu	Val	Ala	Ile	His	Thr	Asp	Gly	Asn	Glu	Gln	Ile	Ser	Val	
			340					345					350			
Val	Ser	Phe	Ser	Pro	Asp	Gly	Ala	Tyr	Leu	Ala	Val	Gly	Ser	His	Asp	
		355					360					365				
Asn	Leu	Val	Tyr	Val	Tyr	Thr	Val	Asp	Gln	Gly	Gly	Arg	Lys	Val	Ser	
	370					375					380					
Arg	Leu	Gly	Lys	Cys	Ser	Gly	His	Ser	Ser	Phe	Ile	Thr	His	Leu	Asp	
385					390					395					400	
Trp	Ala	Gln	Asp	Ser	Ser	Cys	Phe	Val	Thr	Asn	Ser	Gly	Asp	Tyr	Glu	

222

405	410	415
Ile Leu Tyr Trp Asp Pro Ala Thr Cys Lys Gln Ile Thr Ser Ala Asp 420 425 430		
Ala Val Arg Asn Met Glu Trp Ala Thr Ala Thr Cys Val Leu Gly Phe 435 440 445		
Gly Val Phe Gly Ile Trp Ser Glu Gly Ala Asp Gly Thr Asp Ile Asn 450 455 460		
Ala Val Ala Arg Ser His Asp Gly Lys Leu Leu Ala Ser Ala Asp Asp 465 470 475 480		
Phe Gly Lys Val His Leu Phe Ser Tyr Pro Cys Cys Gln Pro Arg Ala 485 490 495		
Leu Ser His Lys Tyr Gly Gly His Ser Ser His Val Thr Asn Val Ala 500 505 510		
Phe Leu Trp Asp Asp Ser Met Ala Leu Thr Thr Gly Gly Lys Asp Thr 515 520 525		
Ser Val Leu Gln Trp Arg Val Val 530 535		
<210> 173		
<211> 544		
<212> PRT		
<213> Homo sapien		
<400> 173		
Arg Leu Gly Ser Gly Leu Gly Val Asn Gly Arg Gly Arg Pro Gly Gln 1 5 10 15		
Val Ala Gly Thr Thr Lys Glu Gly Lys Pro Leu Pro Pro His Val Arg 20 25 30		
Ile Trp Asp Ser Val Ser Leu Ser Thr Leu His Val Leu Gly Leu Gly 35 40 45		
Val Phe Asp Arg Ala Val Cys Cys Val Gly Phe Ser Lys Ser Cys Ser 50 55 60		
Asn Glu Ala Val Leu Val Ala Thr Phe His Pro Thr Asp Pro Thr Val 65 70 75 80		

223

Leu Ile Thr Cys Gly Lys Ser His Ile Tyr Phe Trp Thr Leu Glu Gly  
                   85                                  90                                  95

Gly Ser Leu Ser Lys Arg Gln Gly Leu Phe Glu Lys His Glu Lys Pro  
                   100                                  105                                  110

Lys Tyr Val Leu Cys Val Thr Phe Leu Glu Gly Gly Asp Val Val Thr  
                   115                                  120                                  125

Gly Asp Ser Gly Gly Asn Leu Tyr Val Trp Gly Lys Gly Gly Asn Arg  
                   130                                  135                                  140

Ile Thr Gln Ala Val Leu Gly Ala His Asp Gly Gly Val Phe Gly Leu  
                   145                                  150                                  155                                  160

Cys Ala Leu Arg Asp Gly Thr Leu Val Ser Gly Gly Gly Arg Asp Arg  
                   165                                  170                                  175

Arg Val Val Leu Trp Gly Ser Asp Tyr Ser Lys Leu Gln Glu Val Glu  
                   180                                  185                                  190

Val Pro Glu Asp Phe Gly Pro Val Arg Thr Val Ala Glu Gly His Gly  
                   195                                  200                                  205

Asp Thr Leu Tyr Val Gly Thr Thr Arg Asn Ser Ile Leu Gln Gly Ser  
                   210                                  215                                  220

Val His Thr Gly Phe Ser Leu Leu Val Gln Asp Pro Ala Thr Lys Ser  
                   225                                  230                                  235                                  240

Leu Thr Pro Ser Thr Ala Glu Gly Pro Gln Ala Pro Ala Pro Thr Val  
                   245                                  250                                  255

Leu Pro Pro Ala Thr Leu Ile Gly Gly Gly Thr Leu Gln Gly His Val  
                   260                                  265                                  270

Glu Glu Leu Trp Gly Leu Ala Thr His Pro Ser Arg Ala Gln Phe Val  
                   275                                  280                                  285

Thr Cys Gly Gln Asp Lys Leu Val His Leu Trp Ser Ser Asp Ser His  
                   290                                  295                                  300

Gln Pro Leu Trp Ser Arg Ile Ile Glu Asp Pro Ala Arg Ser Ala Gly  
                   305                                  310                                  315                                  320

Phe His Pro Ser Gly Ser Val Leu Ala Val Gly Thr Val Thr Gly Arg  
325 330 335

Trp Leu Leu Leu Asp Thr Glu Thr His Asp Leu Val Ala Ile His Thr  
340 345 350

Asp Gly Asn Glu Gln Ile Ser Val Val Ser Phe Ser Pro Asp Gly Ala  
355 360 365

Tyr Leu Ala Val Gly Ser His Asp Asn Leu Val Tyr Val Tyr Thr Val  
370 375 380

Asp Gln Gly Gly Arg Lys Val Ser Arg Leu Gly Lys Cys Ser Gly His  
385 390 395 400

Ser Ser Phe Ile Thr His Leu Asp Trp Ala Gln Asp Ser Ser Cys Phe  
405 410 415

Val Thr Asn Ser Gly Asp Tyr Glu Ile Leu Tyr Trp Asp Pro Ala Thr  
420 425 430

Cys Lys Gln Ile Thr Ser Ala Asp Ala Val Arg Asn Met Glu Trp Ala  
435 440 445

Thr Ala Thr Cys Val Leu Gly Phe Gly Val Phe Gly Ile Trp Ser Glu  
450 455 460

Gly Ala Asp Gly Thr Asp Ile Asn Ala Val Ala Arg Ser His Asp Gly  
465 470 475 480

Lys Leu Leu Ala Ser Ala Asp Asp Phe Gly Lys Val His Leu Phe Ser  
485 490 495

Tyr Pro Cys Cys Gln Pro Arg Ala Leu Ser His Lys Tyr Gly Gly His  
500 505 510

Ser Ser His Val Thr Asn Val Ala Phe Leu Trp Asp Asp Ser Met Ala  
515 520 525

Leu Thr Thr Gly Gly Lys Asp Thr Ser Val Leu Gln Trp Arg Val Val  
530 535 540

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<210> 174
<211> 482
<212> PRT
<213> Homo sapien
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225

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> X=any amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (6)..(6)  
 <223> X=any amino acid

<400> 174

Ser Xaa Gly His Cys Xaa Asp Phe Ile Trp Pro Gly His Trp Leu Ser  
 1 5 10 15

Thr Trp His Trp Ser Arg Gln Arg Pro Ser Trp Gly Lys Leu Met Phe  
 20 25 30

Thr Gly Gly Arg Asn Pro Pro Tyr Leu Gln Ala Ala Ser Gln Pro Gln  
 35 40 45

Glu Ala Thr Arg Leu Ala Glu Ser His Val Glu Ser Ala Ser Asn Met  
 50 55 60

Glu Gln Leu Thr Arg Glu Thr Glu Asp Tyr Ser Lys Gln Ala Leu Ser  
 65 70 75 80

Leu Val Arg Lys Ala Leu His Glu Gly Val Gly Ser Gly Ser Gly Ser  
 85 90 95

Pro Asp Gly Ala Val Val Gln Gly Leu Val Glu Lys Leu Glu Lys Thr  
 100 105 110

Lys Ser Leu Ala Gln Gln Leu Thr Arg Glu Ala Thr Gln Ala Glu Ile  
 115 120 125

Glu Ala Asp Arg Ser Tyr Gln His Ser Leu Arg Leu Leu Asp Ser Val  
 130 135 140

Ser Arg Leu Gln Gly Val Ser Asp Gln Ser Phe Gln Val Glu Glu Ala  
 145 150 155 160

Lys Arg Ile Lys Gln Lys Ala Asp Ser Leu Ser Ser Leu Val Thr Arg  
 165 170 175

His Met Asp Glu Phe Lys Arg Thr Gln Lys Asn Leu Gly Asn Trp Lys  
 180 185 190

226

Glu Glu Ala Gln Gln Leu Leu Gln Asn Gly Lys Ser Gly Arg Glu Lys  
 195 200 205

Ser Asp Gln Leu Leu Ser Arg Ala Asn Leu Ala Lys Ser Arg Ala Gln  
 210 215 220

Glu Ala Leu Ser Met Gly Asn Ala Thr Phe Tyr Glu Val Glu Ser Ile  
 225 230 235 240

Leu Lys Asn Leu Arg Glu Phe Asp Leu Gln Val Asp Asn Arg Lys Ala  
 245 250 255

Glu Ala Glu Glu Ala Met Lys Arg Leu Ser Tyr Ile Ser Gln Lys Val  
 260 265 270

Ser Asp Ala Ser Asp Lys Thr Gln Gln Ala Glu Arg Ala Leu Gly Ser  
 275 280 285

Ala Ala Ala Asp Ala Gln Arg Ala Lys Asn Gly Ala Gly Glu Ala Leu  
 290 295 300

Glu Ile Ser Ser Glu Ile Glu Gln Glu Ile Gly Ser Leu Asn Leu Glu  
 305 310 315 320

Ala Asn Val Thr Ala Asp Gly Ala Leu Ala Met Glu Lys Gly Leu Ala  
 325 330 335

Ser Leu Lys Ser Glu Met Arg Glu Val Glu Gly Glu Leu Glu Arg Lys  
 340 345 350

Glu Leu Glu Phe Asp Thr Asn Met Asp Ala Val Gln Met Val Ile Thr  
 355 360 365

Glu Ala Gln Lys Val Asp Thr Arg Ala Lys Asn Ala Gly Val Thr Ile  
 370 375 380

Gln Asp Thr Leu Asn Thr Leu Asp Gly Leu Leu His Leu Met Asp Gln  
 385 390 395 400

Pro Leu Ser Val Asp Glu Glu Gly Leu Val Leu Leu Glu Gln Lys Leu  
 405 410 415

Ser Arg Ala Lys Thr Gln Ile Asn Ser Gln Leu Arg Pro Met Met Ser  
 420 425 430

227

Glu Leu Glu Glu Arg Ala Arg Gln Gln Arg Gly His Leu His Leu Leu  
 435 440 445

Glu Thr Ser Ile Asp Gly Ile Leu Ala Asp Val Lys Asn Leu Glu Asn  
 450 455 460

Ile Arg Asp Asn Leu Pro Pro Gly Cys Tyr Asn Thr Gln Ala Leu Glu  
 465 470 475 480

Gln Gln

<210> 175  
 <211> 454  
 <212> PRT  
 <213> Homo sapien

<400> 175

Met Leu Met Phe Thr Gly Gly Arg Asn Pro Pro Tyr Leu Gln Ala Ala  
 1 5 10 15

Ser Gln Pro Gln Glu Ala Thr Arg Leu Ala Glu Ser His Val Glu Ser  
 20 25 30

Ala Ser Asn Met Glu Gln Leu Thr Arg Glu Thr Glu Asp Tyr Ser Lys  
 35 40 45

Gln Ala Leu Ser Leu Val Arg Lys Ala Leu His Glu Gly Val Gly Ser  
 50 55 60

Gly Ser Gly Ser Pro Asp Gly Ala Val Val Gln Gly Leu Val Glu Lys  
 65 70 75 80

Leu Glu Lys Thr Lys Ser Leu Ala Gln Gln Leu Thr Arg Glu Ala Thr  
 85 90 95

Gln Ala Glu Ile Glu Ala Asp Arg Ser Tyr Gln His Ser Leu Arg Leu  
 100 105 110

Leu Asp Ser Val Ser Arg Leu Gln Gly Val Ser Asp Gln Ser Phe Gln  
 115 120 125

Val Glu Glu Ala Lys Arg Ile Lys Gln Lys Ala Asp Ser Leu Ser Ser  
 130 135 140

Leu Val Thr Arg His Met Asp Glu Phe Lys Arg Thr Gln Lys Asn Leu  
 145 150 155 160

228

Gly Asn Trp Lys Glu Glu Ala Gln Gln Leu Leu Gln Asn Gly Lys Ser  
 165 170 175

Gly Arg Glu Lys Ser Asp Gln Leu Leu Ser Arg Ala Asn Leu Ala Lys  
 180 185 190

Ser Arg Ala Gln Glu Ala Leu Ser Met Gly Asn Ala Thr Phe Tyr Glu  
 195 200 205

Val Glu Ser Ile Leu Lys Asn Leu Arg Glu Phe Asp Leu Gln Val Asp  
 210 215 220

Asn Arg Lys Ala Glu Ala Glu Glu Ala Met Lys Arg Leu Ser Tyr Ile  
 225 230 235 240

Ser Gln Lys Val Ser Asp Ala Ser Asp Lys Thr Gln Gln Ala Glu Arg  
 245 250 255

Ala Leu Gly Ser Ala Ala Ala Asp Ala Gln Arg Ala Lys Asn Gly Ala  
 260 265 270

Gly Glu Ala Leu Glu Ile Ser Ser Glu Ile Glu Gln Glu Ile Gly Ser  
 275 280 285

Leu Asn Leu Glu Ala Asn Val Thr Ala Asp Gly Ala Leu Ala Met Glu  
 290 295 300

Lys Gly Leu Ala Ser Leu Lys Ser Glu Met Arg Glu Val Glu Gly Glu  
 305 310 315 320

Leu Glu Arg Lys Glu Leu Glu Phe Asp Thr Asn Met Asp Ala Val Gln  
 325 330 335

Met Val Ile Thr Glu Ala Gln Lys Val Asp Thr Arg Ala Lys Asn Ala  
 340 345 350

Gly Val Thr Ile Gln Asp Thr Leu Asn Thr Leu Asp Gly Leu Leu His  
 355 360 365

Leu Met Asp Gln Pro Leu Ser Val Asp Glu Glu Gly Leu Val Leu Leu  
 370 375 380

Glu Gln Lys Leu Ser Arg Ala Lys Thr Gln Ile Asn Ser Gln Leu Arg  
 385 390 395 400



229

Pro Met Met Ser Glu Leu Glu Glu Arg Ala Arg Gln Gln Arg Gly His  
 405 410 415

Leu His Leu Leu Glu Thr Ser Ile Asp Gly Ile Leu Ala Asp Val Lys  
 420 425 430

Asn Leu Glu Asn Ile Arg Asp Asn Leu Pro Pro Gly Cys Tyr Asn Thr  
 435 440 445

Gln Ala Leu Glu Gln Gln  
 450

<210> 176

<211> 340

<212> PRT

<213> Homo sapien

<400> 176

Met His Asp Val Lys Asn His Arg Thr Phe Leu Lys Arg Thr Lys Tyr  
 1 5 10 15

Asp Asn Leu His Leu Glu Asp Leu Phe Ile Gly Asn Lys Val Asn Val  
 20 25 30

Phe Ser Arg Gln Leu Val Leu Ile Asp Tyr Gly Asp Gln Tyr Thr Ala  
 35 40 45

Arg Gln Leu Gly Ser Arg Lys Glu Lys Thr Leu Ala Leu Ile Lys Pro  
 50 55 60

Asp Ala Ile Ser Lys Ala Gly Glu Ile Ile Glu Ile Ile Asn Lys Ala  
 65 70 75 80

Gly Phe Thr Ile Thr Lys Leu Lys Met Met Met Leu Ser Arg Lys Glu  
 85 90 95

Ala Leu Asp Phe His Val Asp His Gln Ser Arg Pro Phe Phe Asn Glu  
 100 105 110

Leu Ile Gln Phe Ile Thr Thr Gly Pro Ile Ile Ala Met Glu Ile Leu  
 115 120 125

Arg Asp Asp Ala Ile Cys Glu Trp Lys Arg Leu Leu Gly Pro Ala Asn  
 130 135 140

Ser Gly Val Ala Arg Thr Asp Ala Ser Glu Ser Ile Arg Ala Leu Phe

230

145	150	155	160
Gly Thr Asp Gly Ile Arg Asn Ala Ala His Gly Pro Asp Ser Phe Ala	165	170	175
Ser Ala Ala Arg Glu Met Glu Leu Phe Phe Pro Ser Ser Gly Gly Cys	180	185	190
Gly Pro Ala Asn Thr Ala Lys Phe Thr Asn Cys Thr Cys Cys Ile Val	195	200	205
Lys Pro His Ala Val Ser Glu Gly Leu Leu Gly Lys Ile Leu Met Ala	210	215	220
Ile Arg Asp Ala Gly Phe Glu Ile Ser Ala Met Gln Met Phe Asn Met	225	230	235
Asp Arg Val Asn Val Glu Glu Phe Tyr Glu Val Tyr Lys Gly Val Val	245	250	255
Thr Glu Tyr His Asp Met Val Thr Glu Met Tyr Ser Gly Pro Cys Val	260	265	270
Ala Met Glu Ile Gln Gln Asn Asn Ala Thr Lys Thr Phe Arg Glu Phe	275	280	285
Cys Gly Pro Ala Asp Pro Glu Ile Ala Arg His Leu Arg Pro Gly Thr	290	295	300
Leu Arg Ala Ile Phe Gly Lys Thr Lys Ile Gln Asn Ala Val His Cys	305	310	315
Thr Asp Leu Pro Glu Asp Gly Leu Leu Glu Val Gln Tyr Phe Phe Lys	325	330	335
Ile Leu Asp Asn	340		

&lt;210&gt; 177

&lt;211&gt; 304

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (264)..(264)

&lt;223&gt; X=any amino acid

231

&lt;400&gt; 177

Thr Gly Pro Val Ala Met Gly Arg Val Ile Arg Gly Gln Arg Lys Gly  
 1 5 10 15

Ala Gly Ser Val Phe Arg Ala His Val Lys His Arg Lys Gly Ala Ala  
 20 25 30

Arg Leu Arg Ala Val Asp Phe Ala Glu Arg His Gly Tyr Ile Lys Gly  
 35 40 45

Ile Val Lys Asp Ile Ile His Asp Pro Gly Arg Gly Ala Pro Leu Ala  
 50 55 60

Lys Val Val Phe Arg Asp Pro Tyr Arg Phe Lys Lys Arg Thr Glu Leu  
 65 70 75 80

Phe Ile Ala Ala Glu Gly Ile His Thr Gly Gln Phe Val Tyr Cys Gly  
 85 90 95

Lys Lys Ala Gln Leu Asn Ile Gly Asn Val Leu Pro Val Gly Thr Met  
 100 105 110

Pro Glu Gly Thr Ile Val Cys Cys Leu Glu Glu Lys Pro Gly Asp Arg  
 115 120 125

Gly Lys Leu Ala Arg Ala Ser Gly Asn Tyr Ala Thr Val Ile Ser His  
 130 135 140

Asn Pro Glu Thr Lys Lys Thr Arg Val Lys Leu Pro Ser Gly Ser Lys  
 145 150 155 160

Lys Val Ile Ser Ser Ala Asn Arg Ala Val Val Gly Val Val Ala Gly  
 165 170 175

Gly Gly Arg Ile Asp Lys Pro Ile Leu Lys Ala Gly Arg Ala Tyr His  
 180 185 190

Lys Tyr Lys Ala Lys Arg Asn Cys Trp Pro Arg Val Arg Gly Val Ala  
 195 200 205

Met Asn Pro Val Glu His Pro Phe Gly Gly Gly Asn His Gln His Ile  
 210 215 220

Gly Lys Pro Ser Thr Ile Arg Arg Asp Ala Pro Ala Gly Arg Lys Val  
 225 230 235 240

Gly Leu Ile Ala Ala Arg Arg Thr Gly Arg Leu Arg Gly Thr Lys Thr  
245 250 255

Val Gln Glu Asn Met Trp Ala Xaa Ser Gly Phe Ala Glu Lys Asn Thr  
260 265 270

Thr Thr Gln Thr Gln Arg Gln Thr Tyr Arg Lys Lys Gly Gly Tyr Arg  
275 280 285

Gly Arg His Ser Arg Gly Asn Ile Ile Ala Ala Glu Asp Arg Gly Gly  
290 295 300

<210>	178
<211>	185
<212>	PRT
<213>	Homo sapien

<400> 178

Met Pro Glu Gly Thr Ile Val Cys Cys Leu Glu Glu Lys Pro Gly Asp  
1 5 10 15

Arg Gly Lys Leu Ala Arg Ala Ser Gly Asn Tyr Ala Thr Val Ile Ser  
20 25 30

His Asn Pro Glu Thr Lys Lys Thr Arg Val Lys Leu Pro Ser Gly Ser  
35 40 45

Lys Lys Val Ile Ser Ser Ala Asn Arg Ala Val Val Gly Val Val Ala  
50 55 60

Gly Gly Gly Arg Ile Asp Lys Pro Ile Leu Lys Ala Gly Arg Ala Tyr  
65 70 75 80

His Lys Tyr Lys Ala Lys Arg Asn Cys Trp Pro Arg Val Arg Gly Val  
85 90 95

Ala Met Asn Pro Val Glu His Pro Phe Gly Gly Gly Asn His Gln His  
100 105 110

Ile Gly Lys Pro Ser Thr Ile Arg Arg Asp Ala Pro Ala Gly Arg Lys  
115 120 125

Val Gly Leu Ile Ala Ala Arg Arg Thr Gly Arg Leu Arg Gly Thr Lys  
130 135 140

233

Thr Val Gln Glu Asn Met Trp Ala His Lys Trp Val Cys Arg Glu Lys  
 145 150 155 160

Thr Gln Gln Arg Lys His Lys Gly Lys His Ile Glu Lys Lys Gly Ala  
 165 170 175

Thr Gly Ala Asp Thr Leu Glu Val Ile  
 180 185

<210> 179  
 <211> 484  
 <212> PRT  
 <213> Homo sapien

<400> 179

His Gly Lys Arg Gly Arg His Gly Lys Arg Gly Arg His Gly Met Val  
 1 5 10 15

Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala  
 20 25 30

Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala  
 35 40 45

Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val  
 50 55 60

Ser Ala Asp Ala Met His Thr Asp Pro Asp Tyr Ser Ala Ala Tyr Val  
 65 70 75 80

Val Ile Glu Thr Asp Ala Glu Asp Gly Ile Lys Gly Cys Gly Ile Thr  
 85 90 95

Phe Thr Leu Gly Lys Gly Thr Glu Val Val Val Cys Ala Val Asn Ala  
 100 105 110

Leu Ala His His Val Leu Asn Lys Asp Leu Lys Asp Ile Val Gly Asp  
 115 120 125

Phe Arg Gly Phe Tyr Arg Gln Leu Thr Ser Asp Gly Gln Leu Arg Trp  
 130 135 140

Ile Gly Pro Glu Lys Gly Val Val His Leu Ala Thr Ala Ala Val Leu  
 145 150 155 160

Asn Ala Val Trp Asp Leu Trp Ala Lys Gln Glu Gly Lys Pro Val Trp  
 165 170 175

234

Lys Leu Leu Val Asp Met Asp Pro Arg Met Leu Val Ser Cys Ile Asp  
 180 185 190

Phe Arg Tyr Ile Thr Asp Val Leu Thr Glu Glu Asp Ala Leu Glu Ile  
 195 200 205

Leu Gln Lys Gly Gln Ile Gly Lys Lys Glu Arg Glu Lys Gln Met Leu  
 210 215 220

Ala Gln Gly Tyr Pro Ala Tyr Thr Thr Ser Cys Ala Trp Leu Gly Tyr  
 225 230 235 240

Ser Asp Asp Thr Leu Lys Gln Leu Cys Ala Gln Ala Leu Lys Asp Gly  
 245 250 255

Trp Thr Arg Phe Lys Val Lys Val Gly Ala Asp Leu Gln Asp Asp Met  
 260 265 270

Arg Arg Cys Gln Ile Ile Arg Asp Met Ile Gly Pro Glu Lys Thr Leu  
 275 280 285

Met Met Asp Ala Asn Gln Arg Trp Asp Val Pro Glu Ala Val Glu Trp  
 290 295 300

Met Ser Lys Leu Ala Lys Phe Lys Pro Leu Trp Ile Glu Glu Pro Thr  
 305 310 315 320

Ser Pro Asp Asp Ile Leu Gly His Ala Thr Ile Ser Lys Ala Leu Val  
 325 330 335

Pro Leu Gly Ile Gly Ile Ala Thr Gly Glu Gln Cys His Asn Arg Val  
 340 345 350

Ile Phe Lys Gln Leu Leu Gln Ala Lys Ala Leu Gln Phe Leu Gln Ile  
 355 360 365

Asp Ser Cys Arg Leu Gly Ser Val Asn Glu Asn Leu Ser Val Leu Leu  
 370 375 380

Met Ala Lys Lys Phe Glu Ile Pro Val Cys Pro His Ala Gly Gly Val  
 385 390 395 400

Gly Leu Cys Glu Leu Val Gln His Leu Ile Ile Phe Asp Tyr Ile Ser  
 405 410 415

235

Val Ser Ala Ser Leu Glu Asn Arg Val Cys Glu Tyr Val Asp His Leu  
                   420                  425                  430

His Glu His Phe Lys Tyr Pro Val Met Ile Gln Arg Ala Ser Tyr Met  
                   435                  440                  445

Pro Pro Lys Asp Pro Gly Tyr Ser Thr Glu Met Lys Glu Glu Ser Val  
           450                  455                  460

Lys Lys His Gln Tyr Pro Asp Gly Glu Val Trp Lys Lys Leu Leu Pro  
 465                  470                  475                  480

Ala Gln Glu Asn

<210> 180  
 <211> 483  
 <212> PRT  
 <213> Homo sapien

<400> 180

Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Trp Ser  
 1                  5                  10                  15

Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met  
                   20                  25                  30

Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp  
           35                  40                  45

Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser  
           50                  55                  60

Ala Asp Ala Met His Thr Asp Pro Asp Tyr Ser Ala Ala Tyr Val Val  
 65                  70                  75                  80

Ile Glu Thr Asp Ala Glu Asp Gly Ile Lys Gly Cys Gly Ile Thr Phe  
                   85                  90                  95

Thr Leu Gly Lys Gly Thr Glu Val Val Val Cys Ala Val Asn Ala Leu  
                   100                  105                  110

Ala His His Val Leu Asn Lys Asp Leu Lys Asp Ile Val Gly Asp Phe  
           115                  120                  125

Arg Gly Phe Tyr Arg Gln Leu Thr Ser Asp Gly Gln Leu Arg Trp Ile

236

130		135		140
Gly Pro Glu Lys Gly Val Val His Leu Ala Thr Ala Ala Val Leu Asn				
145		150		155 160
Ala Val Trp Asp Leu Trp Ala Lys Gln Glu Gly Lys Pro Val Trp Lys				
	165		170	175
Leu Leu Val Asp Met Asp Pro Arg Met Leu Val Ser Cys Ile Asp Phe				
	180		185	190
Arg Tyr Ile Thr Asp Val Leu Thr Glu Glu Asp Ala Leu Glu Ile Leu				
	195		200	205
Gln Lys Gly Gln Ile Gly Lys Lys Glu Arg Glu Lys Gln Met Leu Ala				
	210		215	220
Gln Gly Tyr Pro Ala Tyr Thr Thr Ser Cys Ala Trp Leu Gly Tyr Ser				
	225		230	235 240
Asp Asp Thr Leu Lys Gln Leu Cys Ala Gln Ala Leu Lys Asp Gly Trp				
	245		250	255
Thr Arg Phe Lys Val Lys Val Gly Ala Asp Leu Gln Asp Asp Met Arg				
	260		265	270
Arg Cys Gln Ile Ile Arg Asp Met Ile Gly Pro Glu Lys Thr Leu Met				
	275		280	285
Met Asp Ala Asn Gln Arg Trp Asp Val Pro Glu Ala Val Glu Trp Met				
	290		295	300
Ser Lys Leu Ala Lys Phe Lys Pro Leu Trp Ile Glu Glu Pro Thr Ser				
	305		310	315 320
Pro Asp Asp Ile Leu Gly His Ala Thr Ile Ser Lys Ala Leu Val Pro				
	325		330	335
Leu Gly Ile Gly Ile Ala Thr Gly Glu Gln Cys His Asn Arg Val Ile				
	340		345	350
Phe Lys Gln Leu Leu Gln Ala Lys Ala Leu Gln Phe Leu Gln Ile Asp				
	355		360	365
Ser Cys Arg Leu Gly Ser Val Asn Glu Asn Leu Ser Val Leu Leu Met				
	370		375	380



237

Ala Lys Lys Phe Glu Ile Pro Val Cys Pro His Ala Gly Gly Val Gly  
385 390 395 400

Leu Cys Glu Leu Val Gln His Leu Ile Ile Phe Asp Tyr Ile Ser Val  
405 410 415

Ser Ala Ser Leu Glu Asn Arg Val Cys Glu Tyr Val Asp His Leu His  
420 425 430

Glu His Phe Lys Tyr Pro Val Met Ile Gln Arg Ala Ser Tyr Met Pro  
435 440 445

Pro Lys Asp Pro Gly Tyr Ser Thr Glu Met Lys Glu Glu Ser Val Lys  
450 455 460

Lys His Gln Tyr Pro Asp Gly Glu Val Trp Lys Lys Leu Leu Pro Ala  
465 470 475 480

Gln Glu Asn

<210> 181  
<211> 484  
<212> PRT  
<213> Homo sapien

<400> 181

His Gly Lys Arg Gly Arg His Gly Lys Arg Gly Arg His Gly Met Val  
1 5 10 15

Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala  
20 25 30

Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala  
35 40 45

Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val  
50 55 60

Ser Ala Asp Ala Met His Thr Asp Pro Asp Tyr Ser Ala Ala Tyr Val  
65 70 75 80

Val Ile Glu Thr Asp Ala Glu Asp Gly Ile Lys Gly Cys Gly Ile Thr  
85 90 95

238

Phe Thr Leu Gly Lys Gly Thr Glu Val Val Val Cys Ala Val Asn Ala  
 100 105 110

Leu Ala His His Val Leu Asn Lys Asp Leu Lys Asp Ile Val Gly Asp  
 115 120 125

Phe Arg Gly Phe Tyr Arg Gln Leu Thr Ser Asp Gly Gln Leu Arg Trp  
 130 135 140

Ile Gly Pro Glu Lys Gly Val Val His Leu Ala Thr Ala Ala Val Leu  
 145 150 155 160

Asn Ala Val Trp Asp Leu Trp Ala Lys Gln Glu Gly Lys Pro Val Trp  
 165 170 175

Lys Leu Leu Val Asp Met Asp Pro Arg Met Leu Val Ser Cys Ile Asp  
 180 185 190

Phe Arg Tyr Ile Thr Asp Val Leu Thr Glu Glu Asp Ala Leu Glu Ile  
 195 200 205

Leu Gln Lys Gly Gln Ile Gly Lys Lys Glu Arg Glu Lys Gln Met Leu  
 210 215 220

Ala Gln Gly Tyr Pro Ala Tyr Thr Thr Ser Cys Ala Trp Leu Gly Tyr  
 225 230 235 240

Ser Asp Asp Thr Leu Lys Gln Leu Cys Ala Gln Ala Leu Lys Asp Gly  
 245 250 255

Trp Thr Arg Phe Lys Val Lys Val Gly Ala Asp Leu Gln Asp Asp Met  
 260 265 270

Arg Arg Cys Gln Ile Ile Arg Asp Met Ile Gly Pro Glu Lys Thr Leu  
 275 280 285

Met Met Asp Ala Asn Gln Arg Trp Asp Val Pro Glu Ala Val Glu Trp  
 290 295 300

Met Ser Lys Leu Ala Lys Phe Lys Pro Leu Trp Ile Glu Glu Pro Thr  
 305 310 315 320

Ser Pro Asp Asp Ile Leu Gly His Ala Thr Ile Ser Lys Ala Leu Val  
 325 330 335

Pro Leu Gly Ile Gly Ile Ala Thr Gly Glu Gln Cys His Asn Arg Val

239

340 345 350  
 Ile Phe Lys Gln Leu Leu Gln Ala Lys Ala Leu Gln Phe Leu Gln Ile  
 355 360 365  
 Asp Ser Cys Arg Leu Gly Ser Val Asn Glu Asn Leu Ser Val Leu Leu  
 370 375 380  
 Met Ala Lys Lys Phe Glu Ile Pro Val Cys Pro His Ala Gly Gly Val  
 385 390 395 400  
 Gly Leu Cys Glu Leu Val Gln His Leu Ile Ile Phe Asp Tyr Ile Ser  
 405 410 415  
 Val Ser Ala Ser Leu Glu Asn Arg Val Cys Glu Tyr Val Asp His Leu  
 420 425 430  
 His Glu His Phe Lys Tyr Pro Val Met Ile Gln Arg Ala Ser Tyr Met  
 435 440 445  
 Pro Pro Lys Asp Pro Gly Tyr Ser Thr Glu Met Lys Glu Glu Ser Val  
 450 455 460  
 Lys Lys His Gln Tyr Pro Asp Gly Glu Val Trp Lys Lys Leu Leu Pro  
 465 470 475 480  
 Ala Gln Glu Asn

<210> 182  
 <211> 484  
 <212> PRT  
 <213> Homo sapien

<400> 182

His Gly Lys Arg Gly Arg His Gly Lys Arg Gly Arg His Gly Met Val  
 1 5 10 15  
 Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala  
 20 25 30  
 Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala  
 35 40 45  
 Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val  
 50 55 60

240

Ser	Ala	Asp	Ala	Met	His	Thr	Asp	Pro	Asp	Tyr	Ser	Ala	Ala	Tyr	Val	65	70	75	80
Val	Ile	Glu	Thr	Asp	Ala	Glu	Asp	Gly	Ile	Lys	Gly	Cys	Gly	Ile	Thr	85	90	95	
Phe	Thr	Leu	Gly	Lys	Gly	Thr	Glu	Val	Val	Val	Cys	Ala	Val	Asn	Ala	100	105	110	
Leu	Ala	His	His	Val	Leu	Asn	Lys	Asp	Leu	Lys	Asp	Ile	Val	Gly	Asp	115	120	125	
Phe	Arg	Gly	Phe	Tyr	Arg	Gln	Leu	Thr	Ser	Asp	Gly	Gln	Leu	Arg	Trp	130	135	140	
Ile	Gly	Pro	Glu	Lys	Gly	Val	Val	His	Leu	Ala	Thr	Ala	Ala	Val	Leu	145	150	155	160
Asn	Ala	Val	Trp	Asp	Leu	Trp	Ala	Lys	Gln	Glu	Gly	Lys	Pro	Val	Trp	165	170	175	
Lys	Leu	Leu	Val	Asp	Met	Asp	Pro	Arg	Met	Leu	Val	Ser	Cys	Ile	Asp	180	185	190	
Phe	Arg	Tyr	Ile	Thr	Asp	Val	Leu	Thr	Glu	Glu	Asp	Ala	Leu	Glu	Ile	195	200	205	
Leu	Gln	Lys	Gly	Gln	Ile	Gly	Lys	Lys	Glu	Arg	Glu	Lys	Gln	Met	Leu	210	215	220	
Ala	Gln	Gly	Tyr	Pro	Ala	Tyr	Thr	Thr	Ser	Cys	Ala	Trp	Leu	Gly	Tyr	225	230	235	240
Ser	Asp	Asp	Thr	Leu	Lys	Gln	Leu	Cys	Ala	Gln	Ala	Leu	Lys	Asp	Gly	245	250	255	
Trp	Thr	Arg	Phe	Lys	Val	Lys	Val	Gly	Ala	Asp	Leu	Gln	Asp	Asp	Met	260	265	270	
Arg	Arg	Cys	Gln	Ile	Ile	Arg	Asp	Met	Ile	Gly	Pro	Glu	Lys	Thr	Leu	275	280	285	
Met	Met	Asp	Ala	Asn	Gln	Arg	Trp	Asp	Val	Pro	Glu	Ala	Val	Glu	Trp	290	295	300	

241

Met Ser Lys Leu Ala Lys Phe Lys Pro Leu Trp Ile Glu Glu Pro Thr  
 305 310 315 320

Ser Pro Asp Asp Ile Leu Gly His Ala Thr Ile Ser Lys Ala Leu Val  
 325 330 335

Pro Leu Gly Ile Gly Ile Ala Thr Gly Glu Gln Cys His Asn Arg Val  
 340 345 350

Ile Phe Lys Gln Leu Leu Gln Ala Lys Ala Leu Gln Phe Leu Gln Ile  
 355 360 365

Asp Ser Cys Arg Leu Gly Ser Val Asn Glu Asn Leu Ser Val Leu Leu  
 370 375 380

Met Ala Lys Lys Phe Glu Ile Pro Val Cys Pro His Ala Gly Gly Val  
 385 390 395 400

Gly Leu Cys Glu Leu Val Gln His Leu Ile Ile Phe Asp Tyr Ile Ser  
 405 410 415

Val Ser Ala Ser Leu Glu Asn Arg Val Cys Glu Tyr Val Asp His Leu  
 420 425 430

His Glu His Phe Lys Tyr Pro Val Met Ile Gln Arg Ala Ser Tyr Met  
 435 440 445

Pro Pro Lys Asp Pro Gly Tyr Ser Thr Glu Met Lys Glu Glu Ser Val  
 450 455 460

Lys Lys His Gln Tyr Pro Asp Gly Glu Val Trp Lys Lys Leu Leu Pro  
 465 470 475 480

Ala Gln Glu Asn

<210> 183

<211> 249

<212> PRT

<213> Homo sapien

<400> 183

Arg Met Ala Gly Pro Gly Glu Cys Asp Asp Gly Pro Asp Phe Pro Ser  
 1 5 10 15

Trp Arg Gln Glu Arg Leu Arg Gln Phe Lys Val Lys Val Gly Ala Asp  
 20 25 30

242

Leu Gln Asp Asp Met Arg Arg Cys Gln Ile Ile Arg Asp Met Ile Gly  
 35 40 45

Pro Glu Lys Thr Leu Met Met Asp Ala Asn Gln Arg Trp Asp Val Pro  
 50 55 60

Glu Ala Val Glu Trp Met Ser Lys Leu Ala Lys Phe Lys Pro Leu Trp  
 65 70 75 80

Ile Glu Glu Pro Thr Ser Pro Asp Asp Ile Leu Gly His Ala Thr Ile  
 85 90 95

Ser Lys Ala Leu Val Pro Leu Gly Ile Gly Ile Ala Thr Gly Glu Gln  
 100 105 110

Cys His Asn Arg Val Ile Phe Lys Gln Leu Leu Gln Ala Lys Ala Leu  
 115 120 125

Gln Phe Leu Gln Ile Asp Ser Cys Arg Leu Gly Ser Val Asn Glu Asn  
 130 135 140

Leu Ser Val Leu Leu Met Ala Lys Lys Phe Glu Ile Pro Val Cys Pro  
 145 150 155 160

His Ala Gly Gly Val Gly Leu Cys Glu Leu Val Gln His Leu Ile Ile  
 165 170 175

Phe Asp Tyr Ile Ser Val Ser Ala Ser Leu Glu Asn Arg Val Cys Glu  
 180 185 190

Tyr Val Asp His Leu His Glu His Phe Lys Tyr Pro Val Met Ile Gln  
 195 200 205

Arg Ala Ser Tyr Met Pro Pro Lys Asp Pro Gly Tyr Ser Thr Glu Met  
 210 215 220

Lys Glu Glu Ser Val Lys Lys His Gln Tyr Pro Asp Gly Glu Val Trp  
 225 230 235 240

Lys Lys Leu Leu Pro Ala Gln Glu Asn  
 245

<210> 184  
 <211> 221  
 <212> PRT

243

&lt;213&gt; Homo sapien

&lt;400&gt; 184

Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Trp Ser  
 1 5 10 15

Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met  
 20 25 30

Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp  
 35 40 45

Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser  
 50 55 60

Ala Asp Ala Met His Thr Asp Pro Asp Tyr Ser Ala Ala Tyr Val Val  
 65 70 75 80

Ile Glu Thr Asp Ala Glu Asp Gly Ile Lys Gly Cys Gly Ile Thr Phe  
 85 90 95

Thr Leu Gly Lys Gly Thr Glu Val Val Val Cys Ala Val Asn Ala Leu  
 100 105 110

Ala His His Val Leu Asn Lys Asp Leu Lys Asp Ile Val Gly Asp Phe  
 115 120 125

Arg Gly Phe Tyr Arg Gln Leu Thr Ser Asp Gly Gln Leu Arg Trp Ile  
 130 135 140

Gly Pro Glu Lys Gly Val Val His Leu Ala Thr Ala Ala Val Leu Asn  
 145 150 155 160

Ala Val Trp Asp Leu Trp Ala Lys Gln Glu Gly Lys Pro Val Trp Lys  
 165 170 175

Leu Leu Val Asp Met Asp Pro Arg Met Leu Val Ser Cys Ile Asp Phe  
 180 185 190

Arg Tyr Ile Thr Asp Val Leu Thr Glu Glu Asp Ala Leu Glu Ile Leu  
 195 200 205

Gln Lys Gly Gln Ile Gly Lys Lys Glu Arg Gly Gly Leu  
 210 215 220

&lt;210&gt; 185

244

&lt;211&gt; 416

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 185

His Gly Lys Arg Gly Arg His Gly Lys Arg Gly Arg His Gly Met Val  
 1 5 10 15

Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala  
 20 25 30

Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala  
 35 40 45

Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val  
 50 55 60

Ser Ala Asp Ala Met His Thr Asp Pro Asp Tyr Ser Ala Ala Tyr Val  
 65 70 75 80

Val Ile Glu Thr Asp Ala Glu Asp Gly Ile Lys Gly Cys Gly Ile Thr  
 85 90 95

Phe Thr Leu Gly Lys Gly Thr Glu Val Val Val Cys Ala Val Asn Ala  
 100 105 110

Leu Ala His His Val Leu Asn Lys Asp Leu Lys Asp Ile Val Gly Asp  
 115 120 125

Phe Arg Gly Phe Tyr Arg Gln Leu Thr Ser Asp Gly Gln Leu Arg Trp  
 130 135 140

Ile Gly Pro Glu Lys Gly Val Val His Leu Ala Thr Ala Ala Val Leu  
 145 150 155 160

Asn Ala Val Trp Asp Leu Trp Ala Lys Gln Glu Gly Lys Pro Val Trp  
 165 170 175

Lys Leu Leu Val Asp Met Asp Pro Arg Met Leu Val Ser Cys Ile Asp  
 180 185 190

Phe Arg Tyr Ile Thr Asp Val Leu Thr Glu Glu Asp Ala Leu Glu Ile  
 195 200 205

Leu Gln Lys Gly Gln Ile Gly Lys Lys Glu Arg Glu Lys Gln Met Leu  
 210 215 220



245

Ala Gln Gly Tyr Pro Ala Tyr Thr Thr Ser Cys Ala Trp Leu Gly Tyr  
 225 230 235 240

Ser Asp Asp Thr Leu Lys Gln Leu Cys Ala Gln Ala Leu Lys Asp Gly  
 245 250 255

Trp Thr Arg Phe Lys Val Lys Val Gly Ala Asp Leu Gln Asp Asp Met  
 260 265 270

Arg Arg Cys Gln Ile Ile Arg Asp Met Ile Gly Pro Glu Lys Thr Leu  
 275 280 285

Met Met Asp Ala Asn Gln Arg Trp Asp Val Pro Glu Ala Val Glu Trp  
 290 295 300

Met Ser Lys Leu Ala Lys Phe Lys Pro Leu Trp Ile Glu Glu Pro Thr  
 305 310 315 320

Ser Pro Asp Asp Ile Leu Gly His Ala Thr Ile Ser Lys Ala Leu Val  
 325 330 335

Pro Leu Gly Ile Gly Ile Ala Thr Gly Glu Gln Val Ser Asp Ala Pro  
 340 345 350

Asn Arg Trp Met Thr Ser Pro Trp Gly Gln Tyr Thr Leu Thr Ser Asp  
 355 360 365

Arg Gly His Ser Cys Val Leu Gly Ser Ile Thr Cys Cys Thr Leu Ser  
 370 375 380

Trp Glu Ile Phe Ile Ile Leu Glu Thr Gly Ser Phe Tyr Gln Ser Leu  
 385 390 395 400

Glu Ser Asp Ile Glu Lys Val Cys Gly Tyr Phe Ser Asn Leu Tyr Asp  
 405 410 415

&lt;210&gt; 186

&lt;211&gt; 415

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 186

Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Trp Ser  
 1 5 10 15

Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met

246

20						25						30					
Val	Ser	Ala	Asp	Ala	Met	Val	Ser	Ala	Asp	Ala	Met	Val	Ser	Ala	Asp		
		35						40						45			
Ala	Met	Val	Ser	Ala	Asp	Ala	Met	Val	Ser	Ala	Asp	Ala	Met	Val	Ser		
		50						55						60			
Ala	Asp	Ala	Met	His	Thr	Asp	Pro	Asp	Tyr	Ser	Ala	Ala	Tyr	Val	Val		
		65									75				80		
Ile	Glu	Thr	Asp	Ala	Glu	Asp	Gly	Ile	Lys	Gly	Cys	Gly	Ile	Thr	Phe		
				85					90					95			
Thr	Leu	Gly	Lys	Gly	Thr	Glu	Val	Val	Val	Cys	Ala	Val	Asn	Ala	Leu		
			100						105					110			
Ala	His	His	Val	Leu	Asn	Lys	Asp	Leu	Lys	Asp	Ile	Val	Gly	Asp	Phe		
			115					120						125			
Arg	Gly	Phe	Tyr	Arg	Gln	Leu	Thr	Ser	Asp	Gly	Gln	Leu	Arg	Trp	Ile		
														140			
Gly	Pro	Glu	Lys	Gly	Val	Val	His	Leu	Ala	Thr	Ala	Ala	Val	Leu	Asn		
								150			155				160		
Ala	Val	Trp	Asp	Leu	Trp	Ala	Lys	Gln	Glu	Gly	Lys	Pro	Val	Trp	Lys		
				165					170					175			
Leu	Leu	Val	Asp	Met	Asp	Pro	Arg	Met	Leu	Val	Ser	Cys	Ile	Asp	Phe		
				180					185					190			
Arg	Tyr	Ile	Thr	Asp	Val	Leu	Thr	Glu	Glu	Asp	Ala	Leu	Glu	Ile	Leu		
														205			
Gln	Lys	Gly	Gln	Ile	Gly	Lys	Lys	Glu	Arg	Glu	Lys	Gln	Met	Leu	Ala		
								215						220			
Gln	Gly	Tyr	Pro	Ala	Tyr	Thr	Thr	Ser	Cys	Ala	Trp	Leu	Gly	Tyr	Ser		
										235					240		
Asp	Asp	Thr	Leu	Lys	Gln	Leu	Cys	Ala	Gln	Ala	Leu	Lys	Asp	Gly	Trp		
				245					250					255			
Thr	Arg	Phe	Lys	Val	Lys	Val	Gly	Ala	Asp	Leu	Gln	Asp	Asp	Met	Arg		
				260				265						270			

247

Arg Cys Gln Ile Ile Arg Asp Met Ile Gly Pro Glu Lys Thr Leu Met  
 275 280 285

Met Asp Ala Asn Gln Arg Trp Asp Val Pro Glu Ala Val Glu Trp Met  
 290 295 300

Ser Lys Leu Ala Lys Phe Lys Pro Leu Trp Ile Glu Glu Pro Thr Ser  
 305 310 315 320

Pro Asp Asp Ile Leu Gly His Ala Thr Ile Ser Lys Ala Leu Val Pro  
 325 330 335

Leu Gly Ile Gly Ile Ala Thr Gly Glu Gln Val Ser Asp Ala Pro Asn  
 340 345 350

Arg Trp Met Thr Ser Pro Trp Gly Gln Tyr Thr Leu Thr Ser Asp Arg  
 355 360 365

Gly His Ser Cys Val Leu Gly Ser Ile Thr Cys Cys Thr Leu Ser Trp  
 370 375 380

Glu Ile Phe Ile Ile Leu Glu Thr Gly Ser Phe Tyr Gln Ser Leu Glu  
 385 390 395 400

Ser Asp Ile Glu Lys Val Cys Gly Tyr Phe Ser Asn Leu Tyr Asp  
 405 410 415

<210> 187

<211> 484

<212> PRT

<213> Homo sapien

<400> 187

His Gly Lys Arg Gly Arg His Gly Lys Arg Gly Arg His Gly Met Val  
 1 5 10 15

Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala  
 20 25 30

Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala  
 35 40 45

Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val  
 50 55 60

248

Ser Ala Asp Ala Met His Thr Asp Pro Asp Tyr Ser Ala Ala Tyr Val  
65 70 75 80

Val Ile Glu Thr Asp Ala Glu Asp Gly Ile Lys Gly Cys Gly Ile Thr  
85 90 95

Phe Thr Leu Gly Lys Gly Thr Glu Val Val Val Cys Ala Val Asn Ala  
100 105 110

Leu Ala His His Val Leu Asn Lys Asp Leu Lys Asp Ile Val Gly Asp  
115 120 125

Phe Arg Gly Phe Tyr Arg Gln Leu Thr Ser Asp Gly Gln Leu Arg Trp  
130 135 140

Ile Gly Pro Glu Lys Gly Val Val His Leu Ala Thr Ala Ala Val Leu  
145 150 155 160

Asn Ala Val Trp Asp Leu Trp Ala Lys Gln Glu Gly Lys Pro Val Trp  
165 170 175

Lys Leu Leu Val Asp Met Asp Pro Arg Met Leu Val Ser Cys Ile Asp  
180 185 190

Phe Arg Tyr Ile Thr Asp Val Leu Thr Glu Glu Asp Ala Leu Glu Ile  
195 200 205

Leu Gln Lys Gly Gln Ile Gly Lys Lys Glu Arg Glu Lys Gln Met Leu  
210 215 220

Ala Gln Gly Tyr Pro Ala Tyr Thr Thr Ser Cys Ala Trp Leu Gly Tyr  
225 230 235 240

Ser Asp Asp Thr Leu Lys Gln Leu Cys Ala Gln Ala Leu Lys Asp Gly  
245 250 255

Trp Thr Arg Phe Lys Val Lys Val Gly Ala Asp Leu Gln Asp Asp Met  
260 265 270

Arg Arg Cys Gln Ile Ile Arg Asp Met Ile Gly Pro Glu Lys Thr Leu  
275 280 285

Met Met Asp Ala Asn Gln Arg Trp Asp Val Pro Glu Ala Val Glu Trp  
290 295 300

Met Ser Lys Leu Ala Lys Phe Lys Pro Leu Trp Ile Glu Glu Pro Thr

[illegible]

<210>	188
<211>	349
<212>	PRT
<213>	Homo sapien

**<400> 188**

His Gly Lys Arg Gly Arg His Gly Lys Arg Gly Arg His Gly Met Val  
1 5 10 15

Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala  
20 25 30

250

Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala  
 35 40 45

Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val  
 50 55 60

Ser Ala Asp Ala Met His Thr Asp Pro Asp Tyr Ser Ala Ala Tyr Val  
 65 70 75 80

Val Ile Glu Thr Asp Ala Glu Asp Gly Ile Lys Gly Cys Gly Ile Thr  
 85 90 95

Phe Thr Leu Gly Lys Gly Thr Glu Val Val Val Cys Ala Val Asn Ala  
 100 105 110

Leu Ala His His Val Leu Asn Lys Asp Leu Lys Asp Ile Val Gly Asp  
 115 120 125

Phe Arg Gly Phe Tyr Arg Gln Leu Thr Ser Asp Gly Gln Leu Arg Trp  
 130 135 140

Ile Gly Pro Glu Lys Gly Val Val His Leu Ala Thr Ala Ala Val Leu  
 145 150 155 160

Asn Ala Val Trp Asp Leu Trp Ala Lys Gln Glu Gly Lys Pro Val Trp  
 165 170 175

Lys Leu Leu Val Asp Met Asp Pro Arg Met Leu Val Ser Cys Ile Asp  
 180 185 190

Phe Arg Tyr Ile Thr Asp Val Leu Thr Glu Glu Asp Ala Leu Glu Ile  
 195 200 205

Leu Gln Lys Gly Gln Ile Gly Lys Lys Glu Arg Glu Lys Gln Met Leu  
 210 215 220

Ala Gln Gly Tyr Pro Ala Tyr Thr Thr Ser Cys Ala Trp Leu Gly Tyr  
 225 230 235 240

Ser Asp Asp Thr Leu Lys Gln Leu Cys Ala Gln Ala Leu Lys Asp Gly  
 245 250 255

Trp Thr Arg Phe Lys Val Lys Val Gly Ala Asp Leu Gln Asp Asp Met  
 260 265 270

251

Arg Arg Cys Gln Ile Ile Arg Asp Met Ile Gly Pro Glu Lys Thr Leu  
 275 280 285

Met Met Asp Ala Asn Gln Arg Trp Asp Val Pro Glu Ala Val Glu Trp  
 290 295 300

Met Ser Lys Leu Ala Lys Phe Lys Pro Leu Trp Ile Glu Glu Pro Thr  
 305 310 315 320

Ser Pro Asp Asp Ile Leu Gly His Ala Thr Ile Ser Lys Ala Leu Val  
 325 330 335

Pro Leu Gly Ile Gly Ile Ala Thr Gly Glu Gln Gly Val  
 340 345

<210> 189  
 <211> 305  
 <212> PRT  
 <213> Homo sapien

<400> 189

Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala  
 1 5 10 15

Asp Ala Met Val Ser Ala Asp Ala Met His Thr Asp Pro Asp Tyr Ser  
 20 25 30

Ala Ala Tyr Val Val Ile Glu Thr Asp Ala Glu Asp Gly Ile Lys Gly  
 35 40 45

Cys Gly Ile Thr Phe Thr Leu Gly Lys Gly Thr Glu Val Val Val Cys  
 50 55 60

Ala Val Asn Ala Leu Ala His His Val Leu Asn Lys Asp Leu Lys Asp  
 65 70 75 80

Ile Val Gly Asp Phe Arg Gly Phe Tyr Arg Gln Leu Thr Ser Asp Gly  
 85 90 95

Gln Leu Arg Trp Ile Gly Pro Glu Lys Gly Val Val His Leu Ala Thr  
 100 105 110

Ala Ala Val Leu Asn Ala Val Trp Asp Leu Trp Ala Lys Gln Glu Gly  
 115 120 125

Lys Pro Val Trp Lys Leu Leu Val Asp Met Asp Pro Arg Met Leu Val  
 130 135 140

252

Ser Cys Ile Asp Phe Arg Tyr Ile Thr Asp Val Leu Thr Glu Glu Asp  
 145 150 155 160

Ala Leu Glu Ile Leu Gln Lys Gly Gln Ile Gly Lys Lys Glu Arg Glu  
 165 170 175

Lys Gln Met Leu Ala Gln Gly Tyr Pro Ala Tyr Thr Thr Ser Cys Ala  
 180 185 190

Trp Leu Gly Tyr Ser Asp Asp Thr Leu Lys Gln Leu Cys Ala Gln Ala  
 195 200 205

Leu Lys Asp Gly Trp Thr Arg Phe Lys Val Lys Val Gly Ala Asp Leu  
 210 215 220

Gln Asp Asp Met Arg Arg Cys Gln Ile Ile Arg Asp Met Ile Gly Pro  
 225 230 235 240

Glu Lys Thr Leu Met Met Asp Ala Asn Gln Arg Trp Asp Val Pro Glu  
 245 250 255

Ala Val Glu Trp Met Ser Lys Leu Ala Lys Phe Lys Pro Leu Trp Ile  
 260 265 270

Glu Glu Pro Thr Ser Pro Asp Asp Ile Leu Gly His Ala Thr Ile Ser  
 275 280 285

Lys Ala Leu Val Pro Leu Gly Ile Gly Ile Ala Thr Gly Glu Gln Gly  
 290 295 300

Val  
 305

<210> 190  
 <211> 484  
 <212> PRT  
 <213> Homo sapien

<400> 190

His Gly Lys Arg Gly Arg His Gly Lys Arg Gly Arg His Gly Met Val  
 1 5 10 15

Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala  
 20 25 30



253

Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala  
 35 40 45

Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val  
 50 55 60

Ser Ala Asp Ala Met His Thr Asp Pro Asp Tyr Ser Ala Ala Tyr Val  
 65 70 75 80

Val Ile Glu Thr Asp Ala Glu Asp Gly Ile Lys Gly Cys Gly Ile Thr  
 85 90 95

Phe Thr Leu Gly Lys Gly Thr Glu Val Val Val Cys Ala Val Asn Ala  
 100 105 110

Leu Ala His His Val Leu Asn Lys Asp Leu Lys Asp Ile Val Gly Asp  
 115 120 125

Phe Arg Gly Phe Tyr Arg Gln Leu Thr Ser Asp Gly Gln Leu Arg Trp  
 130 135 140

Ile Gly Pro Glu Lys Gly Val Val His Leu Ala Thr Ala Ala Val Leu  
 145 150 155 160

Asn Ala Val Trp Asp Leu Trp Ala Lys Gln Glu Gly Lys Pro Val Trp  
 165 170 175

Lys Leu Leu Val Asp Met Asp Pro Arg Met Leu Val Ser Cys Ile Asp  
 180 185 190

Phe Arg Tyr Ile Thr Asp Val Leu Thr Glu Glu Asp Ala Leu Glu Ile  
 195 200 205

Leu Gln Lys Gly Gln Ile Gly Lys Lys Glu Arg Glu Lys Gln Met Leu  
 210 215 220

Ala Gln Gly Tyr Pro Ala Tyr Thr Thr Ser Cys Ala Trp Leu Gly Tyr  
 225 230 235 240

Ser Asp Asp Thr Leu Lys Gln Leu Cys Ala Gln Ala Leu Lys Asp Gly  
 245 250 255

Trp Thr Arg Phe Lys Val Lys Val Gly Ala Asp Leu Gln Asp Asp Met  
 260 265 270

Arg Arg Cys Gln Ile Ile Arg Asp Met Ile Gly Pro Glu Lys Thr Leu

254

275

280

285

Met Met Asp Ala Asn Gln Arg Trp Asp Val Pro Glu Ala Val Glu Trp  
 290 295 300

Met Ser Lys Leu Ala Lys Phe Lys Pro Leu Trp Ile Glu Glu Pro Thr  
 305 310 315 320

Ser Pro Asp Asp Ile Leu Gly His Ala Thr Ile Ser Lys Ala Leu Val  
 325 330 335

Pro Leu Gly Ile Gly Ile Ala Thr Gly Glu Gln Cys His Asn Arg Val  
 340 345 350

Ile Phe Lys Gln Leu Leu Gln Ala Lys Ala Leu Gln Phe Leu Gln Ile  
 355 360 365

Asp Ser Cys Arg Leu Gly Ser Val Asn Glu Asn Leu Ser Val Leu Leu  
 370 375 380

Met Ala Lys Lys Phe Glu Ile Pro Val Cys Pro His Ala Gly Gly Val  
 385 390 395 400

Gly Leu Cys Glu Leu Val Gln His Leu Ile Ile Phe Asp Tyr Ile Ser  
 405 410 415

Val Ser Ala Ser Leu Glu Asn Arg Val Cys Glu Tyr Val Asp His Leu  
 420 425 430

His Glu His Phe Lys Tyr Pro Val Met Ile Gln Arg Ala Ser Tyr Met  
 435 440 445

Pro Pro Lys Asp Pro Gly Tyr Ser Thr Glu Met Lys Glu Glu Ser Val  
 450 455 460

Lys Lys His Gln Tyr Pro Asp Gly Glu Val Trp Lys Lys Leu Leu Pro  
 465 470 475 480

Ala Gln Glu Asn

<210> 191

<211> 484

<212> PRT

<213> Homo sapien

<400> 191

255

His Gly Lys Arg Gly Arg His Gly Lys Arg Gly Arg His Gly Met Val  
1 5 10 15

Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala  
20 25 30

Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala  
35 40 45

Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val  
50 55 60

Ser Ala Asp Ala Met His Thr Asp Pro Asp Tyr Ser Ala Ala Tyr Val  
65 70 75 80

Val Ile Glu Thr Asp Ala Glu Asp Gly Ile Lys Gly Cys Gly Ile Thr  
85 90 95

Phe Thr Leu Gly Lys Gly Thr Glu Val Val Val Cys Ala Val Asn Ala  
100 105 110

Leu Ala His His Val Leu Asn Lys Asp Leu Lys Asp Ile Val Gly Asp  
115 120 125

Phe Arg Gly Phe Tyr Arg Gln Leu Thr Ser Asp Gly Gln Leu Arg Trp  
130 135 140

Ile Gly Pro Glu Lys Gly Val Val His Leu Ala Thr Ala Ala Val Leu  
145 150 155 160

Asn Ala Val Trp Asp Leu Trp Ala Lys Gln Glu Gly Lys Pro Val Trp  
165 170 175

Lys Leu Leu Val Asp Met Asp Pro Arg Met Leu Val Ser Cys Ile Asp  
180 185 190

Phe Arg Tyr Ile Thr Asp Val Leu Thr Glu Glu Asp Ala Leu Glu Ile  
195 200 205

Leu Gln Lys Gly Gln Ile Gly Lys Lys Glu Arg Glu Lys Gln Met Leu  
210 215 220

Ala Gln Gly Tyr Pro Ala Tyr Thr Thr Ser Cys Ala Trp Leu Gly Tyr  
225 230 235 240

[illegible]

257

<210> 192  
 <211> 484  
 <212> PRT  
 <213> Homo sapien

<400> 192

His Gly Lys Arg Gly Arg His Gly Lys Arg Gly Arg His Gly Met Val  
 1 5 10 15

Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala  
 20 25 30

Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala  
 35 40 45

Asp Ala Met Val Ser Ala Asp Ala Met Val Ser Ala Asp Ala Met Val  
 50 55 60

Ser Ala Asp Ala Met His Thr Asp Pro Asp Tyr Ser Ala Ala Tyr Val  
 65 70 75 80

Val Ile Glu Thr Asp Ala Glu Asp Gly Ile Lys Gly Cys Gly Ile Thr  
 85 90 95

Phe Thr Leu Gly Lys Gly Thr Glu Val Val Val Cys Ala Val Asn Ala  
 100 105 110

Leu Ala His His Val Leu Asn Lys Asp Leu Lys Asp Ile Val Gly Asp  
 115 120 125

Phe Arg Gly Phe Tyr Arg Gln Leu Thr Ser Asp Gly Gln Leu Arg Trp  
 130 135 140

Ile Gly Pro Glu Lys Gly Val Val His Leu Ala Thr Ala Ala Val Leu  
 145 150 155 160

Asn Ala Val Trp Asp Leu Trp Ala Lys Gln Glu Gly Lys Pro Val Trp  
 165 170 175

Lys Leu Leu Val Asp Met Asp Pro Arg Met Leu Val Ser Cys Ile Asp  
 180 185 190

Phe Arg Tyr Ile Thr Asp Val Leu Thr Glu Glu Asp Ala Leu Glu Ile  
 195 200 205

258

Leu Gln Lys Gly Gln Ile Gly Lys Lys Glu Arg Glu Lys Gln Met Leu  
 210 215 220

Ala Gln Gly Tyr Pro Ala Tyr Thr Thr Ser Cys Ala Trp Leu Gly Tyr  
 225 230 235 240

Ser Asp Asp Thr Leu Lys Gln Leu Cys Ala Gln Ala Leu Lys Asp Gly  
 245 250 255

Trp Thr Arg Phe Lys Val Lys Val Gly Ala Asp Leu Gln Asp Asp Met  
 260 265 270

Arg Arg Cys Gln Ile Ile Arg Asp Met Ile Gly Pro Glu Lys Thr Leu  
 275 280 285

Met Met Asp Ala Asn Gln Arg Trp Asp Val Pro Glu Ala Val Glu Trp  
 290 295 300

Met Ser Lys Leu Ala Lys Phe Lys Pro Leu Trp Ile Glu Glu Pro Thr  
 305 310 315 320

Ser Pro Asp Asp Ile Leu Gly His Ala Thr Ile Ser Lys Ala Leu Val  
 325 330 335

Pro Leu Gly Ile Gly Ile Ala Thr Gly Glu Gln Cys His Asn Arg Val  
 340 345 350

Ile Phe Lys Gln Leu Leu Gln Ala Lys Ala Leu Gln Phe Leu Gln Ile  
 355 360 365

Asp Ser Cys Arg Leu Gly Ser Val Asn Glu Asn Leu Ser Val Leu Leu  
 370 375 380

Met Ala Lys Lys Phe Glu Ile Pro Val Cys Pro His Ala Gly Gly Val  
 385 390 395 400

Gly Leu Cys Glu Leu Val Gln His Leu Ile Ile Phe Asp Tyr Ile Ser  
 405 410 415

Val Ser Ala Ser Leu Glu Asn Arg Val Cys Glu Tyr Val Asp His Leu  
 420 425 430

His Glu His Phe Lys Tyr Pro Val Met Ile Gln Arg Ala Ser Tyr Met  
 435 440 445

259

Pro Pro Lys Asp Pro Gly Tyr Ser Thr Glu Met Lys Glu Glu Ser Val  
 450 455 460

Lys Lys His Gln Tyr Pro Asp Gly Glu Val Trp Lys Lys Leu Leu Pro  
 465 470 475 480

Ala Gln Glu Asn

<210> 193  
 <211> 138  
 <212> PRT  
 <213> Homo sapien

<400> 193

Trp Ile Val Val Ala Ala Arg Tyr Arg Ile Arg Leu Gly Leu Tyr Leu  
 1 5 10 15

Thr Leu Ala Ser Glu Val Tyr Tyr Thr Arg Leu Gly Asn Asp Phe His  
 20 25 30

Thr Asn Lys Arg Val Cys Glu Glu Ile Ala Ile Ile Pro Ser Lys Lys  
 35 40 45

Leu Arg Asn Lys Ile Ala Gly Tyr Val Thr His Leu Met Lys Arg Ile  
 50 55 60

Gln Arg Gly Pro Val Arg Gly Ile Ser Ile Lys Leu Gln Glu Glu Glu  
 65 70 75 80

Arg Glu Arg Arg Asp Asn Tyr Val Pro Glu Val Ser Ala Leu Asp Gln  
 85 90 95

Glu Ile Ile Glu Val Asp Pro Asp Thr Lys Glu Met Leu Lys Leu Leu  
 100 105 110

Asp Phe Gly Ser Leu Ser Asn Leu Gln Val Thr Gln Pro Thr Val Gly  
 115 120 125

Met Asn Phe Lys Thr Pro Arg Gly Pro Val  
 130 135

<210> 194  
 <211> 386  
 <212> PRT  
 <213> Homo sapien

<400> 194

260

Met Pro Trp Ala Met Ile Trp Asp Phe Thr Glu Pro Val Cys Arg Gly  
 1 5 10 15  
 Cys Val Asn Tyr Glu Gly Ala Asp Arg Val Glu Phe Val Ile Glu Thr  
 20 25 30  
 Ala Arg Gln Leu Lys Arg Ala His Gly Cys Phe Pro Glu Gly Arg Ser  
 35 40 45  
 Pro Pro Gly Ala Ala Ala Ser Ala Ala Ala Lys Pro Pro Pro Leu Ser  
 50 55 60  
 Ala Lys Asp Ile Leu Leu Gln Gln Gln Gln Gln Leu Gly His Gly Gly  
 65 70 75 80  
 Pro Glu Ala Ala Pro Arg Ala Pro Gln Ala Leu Glu Arg Tyr Pro Leu  
 85 90 95  
 Ala Ala Ala Ala Glu Arg Pro Pro Arg Leu Gly Ser Asp Phe Gly Ser  
 100 105 110  
 Ser Arg Pro Ala Ala Ser Leu Ala Gln Pro Pro Thr Pro Gln Pro Pro  
 115 120 125  
 Pro Val Asn Gly Ile Leu Val Pro Asn Gly Phe Ser Lys Leu Glu Glu  
 130 135 140  
 Pro Pro Glu Leu Asn Arg Gln Ser Pro Asn Pro Arg Arg Gly His Ala  
 145 150 155 160  
 Val Pro Pro Thr Leu Val Pro Leu Met Asn Gly Ser Ala Thr Pro Leu  
 165 170 175  
 Pro Thr Ala Leu Gly Leu Gly Gly Arg Ala Ala Ala Ser Leu Ala Ala  
 180 185 190  
 Val Ser Gly Thr Ala Ala Ala Ser Leu Gly Ser Ala Gln Pro Thr Asp  
 195 200 205  
 Leu Gly Ala His Lys Arg Pro Ala Ser Val Ser Ser Ser Ala Ala Val  
 210 215 220  
 Glu His Glu Gln Arg Glu Ala Ala Ala Lys Glu Lys Gln Pro Pro Pro  
 225 230 235 240



<400> 195

Met	Pro	Trp	Ala	Met	Ile	Trp	Asp	Phe	Thr	Glu	Pro	Val	Cys	Arg	Gly
1				5					10					15	
Cys	Val	Asn	Tyr	Glu	Gly	Ala	Asp	Arg	Val	Glu	Phe	Val	Ile	Glu	Thr
			20					25					30		
Ala	Arg	Gln	Leu	Lys	Arg	Ala	His	Gly	Cys	Phe	Pro	Glu	Gly	Arg	Ser
		35					40					45			
Pro	Pro	Gly	Ala	Ala	Ala	Ser	Ala	Ala	Ala	Lys	Pro	Pro	Pro	Leu	Ser
	50					55					60				

262

Ala Lys Asp Ile Leu Leu Gln Gln Gln Gln Gln Leu Gly His Gly Gly  
65 70 75 80

Pro Glu Ala Ala Pro Arg Ala Pro Gln Ala Leu Glu Arg Tyr Pro Leu  
85 90 95

Ala Ala Ala Ala Glu Arg Pro Pro Arg Leu Gly Ser Asp Phe Gly Ser  
100 105 110

Ser Arg Pro Ala Ala Ser Leu Ala Gln Pro Pro Thr Pro Gln Pro Pro  
115 120 125

Pro Val Asn Gly Ile Leu Val Pro Asn Gly Phe Ser Lys Leu Glu Glu  
130 135 140

Pro Pro Glu Leu Asn Arg Gln Ser Pro Asn Pro Arg Arg Gly His Ala  
145 150 155 160

Val Pro Pro Thr Leu Val Pro Leu Met Asn Gly Ser Ala Thr Pro Leu  
165 170 175

Pro Thr Ala Leu Gly Leu Gly Gly Arg Ala Ala Ala Ser Leu Ala Ala  
180 185 190

Val Ser Gly Thr Ala Ala Ala Ser Leu Gly Ser Ala Gln Pro Thr Asp  
195 200 205

Leu Gly Ala His Lys Arg Pro Ala Ser Val Ser Ser Ser Ala Ala Val  
210 215 220

Glu His Glu Gln Arg Glu Ala Ala Ala Lys Glu Lys Gln Pro Pro Pro  
225 230 235 240

Pro Ala His Arg Gly Pro Ala Asp Ser Leu Ser Thr Ala Ala Gly Ala  
245 250 255

Ala Glu Leu Ser Ala Glu Gly Ala Gly Lys Ser Arg Gly Ser Gly Glu  
260 265 270

Gln Asp Trp Val Asn Arg Pro Lys Thr Val Arg Asp Thr Leu Leu Ala  
275 280 285

Leu His Gln His Gly His Ser Gly Pro Phe Glu Ser Lys Phe Lys Lys  
290 295 300

263

Glu Pro Ala Leu Thr Ala Val Ala Arg Thr Ala Arg Lys Arg Lys Pro  
305 310 315 320

Ser Pro Glu Pro Glu Gly Glu Val Gly Pro Pro Lys Ile Asn Gly Glu  
325 330 335

Ala Gln Pro Trp Leu Ser Thr Ser Thr Glu Gly Leu Lys Ile Pro Met  
340 345 350

Thr Pro Thr Ser Ser Phe Val Ser Pro Pro Pro Pro Thr Ala Ser Pro  
355 360 365

His Ser Asn Arg Thr Thr Pro Pro Glu Ala Ala Gln Asn Gly Gln Ser  
370 375 380

Pro Met Ala Ala Leu Ile Leu Val Ala Asp Asn Ala Gly Gly Ser His  
385 390 395 400

Ala Ser Lys Asp Ala Asn Gln Val His Pro Leu Trp Gln Pro Val Pro  
405 410 415

Arg Cys Ala Ala Pro Ser Ala Thr Ser Gly Trp Arg Thr Pro Ile Leu  
420 425 430

Cys Ser Ala Arg Pro Ser Leu Arg Thr Ser Ser Ala Ser Leu Ala Pro  
435 440 445

Asp Lys Ala Ser Asn Ser Arg Glu Leu Val Glu Arg Ser Ile Val Pro  
450 455 460

Val Gly Lys Asn Ala Leu Leu Trp Ala Pro Met Ser Pro Gly Pro Leu  
465 470 475 480

Cys Lys Gly Lys Leu Gln Pro Ser Leu Leu Glu Met  
485 490

<210> 196

<211> 358

<212> PRT

<213> Homo sapien

<400> 196

Met Ser Gly Val Arg Pro Pro Ile Met Asn Gly Pro Leu His Pro Arg  
1 5 10 15

Pro Leu Val Ala Leu Leu Asp Gly Arg Asp Cys Thr Val Glu Met Pro

264

20	25	30
Ile Leu Lys Asp Val Ala Thr 35	Val Ala Phe Cys Asp 40	Ala Gln Ser Thr 45
Gln Glu Ile His Glu Lys Val 50	Leu Asn Glu Ala Val 55	Gly Ala Leu Met 60
Tyr His Thr Ile Thr Leu Thr 65	Arg Glu Asp Leu Glu Lys 70	Phe Lys Ala 75 80
Leu Arg Ile Ile Val Arg Ile 85	Gly Ser Gly Phe Asp Asn 90	Ile Asp Ile 95
Lys Ser Ala Gly Asp Leu Gly 100	Ile Ala Val Cys Asn Val 105	Pro Ala Ala 110
Ser Val Glu Glu Thr Ala Asp 115	Ser Thr Leu Cys His Ile 120	Leu Asn Leu 125
Tyr Arg Arg Ala Thr Trp 130	Leu His Gln Ala Leu Arg 135	Glu Gly Thr Arg 140
Val Gln Ser Val Glu Gln Ile 145	Arg Glu Val Ala Ser Gly 150	Ala Ala Arg 155 160
Ile Arg Gly Glu Thr Leu Gly 165	Ile Ile Gly Leu Gly Arg 170	Val Gly Gln 175
Ala Val Ala Leu Arg Ala Lys 180	Ala Phe Gly Phe Asn Val 185	Leu Phe Tyr 190
Asp Pro Tyr Leu Ser Asp 195	Gly Val Glu Arg Ala Leu 200	Gly Leu Gln Arg 205
Val Ser Thr Leu Gln Asp 210	Leu Leu Phe His Ser Asp 215	Cys Val Thr Leu 220
His Cys Gly Leu Asn Glu His 225	Asn His His Leu Ile Asn 230	Asp Phe Thr 235 240
Val Lys Gln Met Arg Gln Gly 245	Ala Phe Leu Val Asn Thr 250	Ala Arg Gly 255
Gly Leu Val Asp Glu Lys Ala 260	Leu Ala Gln Ala Leu Lys 265	Glu Gly Arg 270

265

Ile Arg Gly Ala Ala Leu Asp Val His Glu Ser Glu Pro Phe Ser Phe  
 275 280 285

Ser Gln Gly Pro Leu Lys Asp Ala Pro Asn Leu Ile Cys Thr Pro His  
 290 295 300

Ala Ala Trp Tyr Ser Glu Gln Ala Ser Ile Glu Met Arg Glu Glu Ala  
 305 310 315 320

Ala Arg Glu Ile Arg Arg Ala Ile Thr Gly Arg Ile Pro Asp Ser Leu  
 325 330 335

Lys Asn Phe Cys Pro Val Ser Phe Ala Phe Leu Val Lys Gln Lys Lys  
 340 345 350

Ser Val Val Ile Leu Pro  
 355

<210> 197  
 <211> 364  
 <212> PRT  
 <213> Homo sapien

<400> 197

Met Gly Pro Gly His Gly Val Met Ala Ser Arg Pro Asp Leu Gln Pro  
 1 5 10 15

Leu Gln His Leu Gly Thr Pro Gly Ser Pro Gly Leu Asp Val Gln Pro  
 20 25 30

Gln Glu Glu Thr Pro Pro Gln Gly Gln Tyr Gln Pro Ala Ala Pro Gly  
 35 40 45

Ala Thr Asp Pro Leu Ala Gly Arg Gly Gln Ala Ala Cys Pro Pro Ile  
 50 55 60

Arg Ala Pro Pro Thr Arg Asp Leu Glu Ile Lys Ser Leu Gly Leu Pro  
 65 70 75 80

His Pro Pro Leu Ser Gly Ala Pro Gly Val Ser Asp Gly Pro Gly Ala  
 85 90 95

Val Leu Leu Ser Ser Ala Ser Leu Pro Ser Arg Ala Gly Pro Trp Gly  
 100 105 110

266

Leu Trp Phe Pro Gly Arg Ala Pro His Arg Gly Phe Gln Cys Gln Pro  
 115 120 125

Pro Pro Leu Arg Thr Gln Pro Gln His Ser Gly Cys Thr Asp His Ala  
 130 135 140

Cys Ala Val Pro Ser Phe Ser Gln Gly Pro Leu Lys Asp Ala Pro Asn  
 145 150 155 160

Leu Ile Cys Thr Pro His Ala Ala Trp Tyr Ser Glu Gln Ala Ser Ile  
 165 170 175

Glu Met Arg Glu Glu Ala Ala Arg Glu Ile Arg Arg Ala Ile Thr Gly  
 180 185 190

Arg Ile Pro Asp Ser Leu Lys Asn Cys Val Asn Lys Asp His Leu Thr  
 195 200 205

Ala Ala Thr His Trp Ala Ser Met Asp Pro Ala Val Val His Pro Glu  
 210 215 220

Leu Asn Gly Ala Ala Tyr Ser Arg Gly Thr Leu Arg Ala Trp Trp Ala  
 225 230 235 240

Trp Pro Pro Leu Ala Ser Gln Leu Leu Trp Lys Val Ser Ser Pro Ala  
 245 250 255

Pro Cys Pro Cys Pro Thr Ala Cys Pro Leu Trp Pro Thr Arg Pro Thr  
 260 265 270

Pro Leu Leu Leu Ala Lys Pro Ser Ser Pro Arg Arg Ile Glu Thr Thr  
 275 280 285

Pro Val Thr Ser Cys Ser Pro Gly Gly Ala Leu Gln Pro Arg Arg Leu  
 290 295 300

Gly Arg Gly Pro Gly Asn Pro Arg Thr Arg Val Cys Gly Gly Gly Ile  
 305 310 315 320

Cys Val Val Ala Leu Ala Leu Gln Arg Leu Val Arg Ala Val Arg Arg  
 325 330 335

Arg Glu Gly Ala Ala Leu Gly Leu Val Ser Leu Val Val Val Arg Pro  
 340 345 350

Val Gly Ala Leu Pro Cys Val Leu Arg Val Pro Arg

267

355

360

<210> 198  
 <211> 192  
 <212> PRT  
 <213> Homo sapien

<400> 198

Ala Gln Pro Ala Cys Arg Ala Glu Arg Gly Arg Gly Val Cys Gly Ser  
 1 5 10 15

Gln Ala Gly Pro Pro Thr Gly Gly Ser Ser Ala Gln Pro Pro Pro Leu  
 20 25 30

Arg Thr Gln Pro Gln His Ser Gly Cys Thr Asp His Ala Cys Ala Val  
 35 40 45

Pro Ser Phe Ser Gln Gly Pro Leu Lys Asp Ala Pro Asn Leu Ile Cys  
 50 55 60

Thr Pro His Ala Ala Trp Tyr Ser Glu Gln Ala Ser Ile Glu Met Arg  
 65 70 75 80

Glu Glu Ala Ala Arg Glu Ile Arg Arg Ala Ile Thr Gly Arg Ile Pro  
 85 90 95

Asp Ser Leu Lys Asn Cys Val Asn Lys Asp His Leu Thr Ala Ala Thr  
 100 105 110

His Trp Ala Ser Met Asp Pro Ala Val Val His Pro Glu Leu Asn Gly  
 115 120 125

Ala Ala Tyr Arg Tyr Pro Pro Gly Val Val Gly Val Ala Pro Thr Gly  
 130 135 140

Ile Pro Ala Ala Val Glu Gly Ile Val Pro Ser Ala Met Ser Leu Ser  
 145 150 155 160

His Gly Leu Pro Pro Val Ala His Pro Pro His Ala Pro Ser Pro Gly  
 165 170 175

Gln Thr Val Lys Pro Glu Ala Asp Arg Asp His Ala Ser Asp Gln Leu  
 180 185 190

<210> 199  
 <211> 178  
 <212> PRT

268

&lt;213&gt; Homo sapien

&lt;400&gt; 199

Met Arg Glu Glu Ala Pro Phe Ser Phe Ser Gln Gly Pro Leu Lys Asp  
 1 5 10 15

Ala Pro Asn Leu Ile Cys Thr Pro His Ala Ala Trp Tyr Met Asp Pro  
 20 25 30

Ala Val Val His Pro Glu Leu Asn Gly Ala Ala Tyr Ser Arg Gly Thr  
 35 40 45

Leu Arg Ala Trp Trp Ala Trp Pro Pro Leu Ala Ser Gln Leu Leu Trp  
 50 55 60

Lys Val Ser Ser Pro Ala Pro Cys Pro Cys Pro Thr Ala Cys Pro Leu  
 65 70 75 80

Trp Pro Thr Arg Pro Thr Pro Leu Leu Leu Ala Lys Pro Ser Ser Pro  
 85 90 95

Arg Arg Ile Glu Thr Thr Pro Val Thr Ser Cys Ser Pro Gly Gly Ala  
 100 105 110

Leu Gln Pro Arg Arg Leu Gly Arg Gly Pro Gly Asn Pro Arg Thr Arg  
 115 120 125

Val Cys Gly Gly Gly Ile Cys Val Val Ala Leu Ala Leu Gln Arg Leu  
 130 135 140

Val Arg Ala Val Arg Arg Arg Glu Gly Ala Ala Leu Gly Leu Val Ser  
 145 150 155 160

Leu Val Val Val Arg Pro Val Gly Ala Leu Pro Cys Val Leu Arg Val  
 165 170 175

Pro Arg

&lt;210&gt; 200

&lt;211&gt; 162

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 200

Arg Met His Pro Thr Ser Ser Ala Pro Pro Met Leu His Gly Thr Trp  
 1 5 10 15



269

Thr Pro Pro Ser Cys Thr Leu Ser Ser Met Gly Leu Pro Ile Gly Thr  
 20 25 30

Leu Arg Ala Trp Trp Ala Trp Pro Pro Leu Ala Ser Gln Leu Leu Trp  
 35 40 45

Lys Val Ser Ser Pro Ala Pro Cys Pro Cys Pro Thr Ala Cys Pro Leu  
 50 55 60

Trp Pro Thr Arg Pro Thr Pro Leu Leu Leu Ala Lys Pro Ser Ser Pro  
 65 70 75 80

Arg Arg Ile Glu Thr Thr Pro Val Thr Ser Cys Ser Pro Gly Gly Ala  
 85 90 95

Leu Gln Pro Arg Arg Leu Gly Arg Gly Pro Gly Asn Pro Arg Thr Arg  
 100 105 110

Val Cys Gly Gly Gly Ile Cys Val Val Ala Leu Ala Leu Gln Arg Leu  
 115 120 125

Val Arg Ala Val Arg Arg Arg Glu Gly Ala Ala Leu Gly Leu Val Ser  
 130 135 140

Leu Val Val Val Arg Pro Val Gly Ala Leu Pro Cys Val Leu Arg Val  
 145 150 155 160

Pro Arg

<210> 201

<211> 272

<212> PRT

<213> Homo sapien

<400> 201

Ala Ser Cys Gly Val Gly Arg Leu Val Gly Trp Gly Ile Ser Gly Gly  
 1 5 10 15

Gly Ala Ser Leu Gly Pro Gly His Leu Gly Gly Gly Ala Ser Trp Gly  
 20 25 30

Arg Gly Ile Ser Glu Gly Ala Ser Gly Gly Trp Ser Ile Leu Gly Gly  
 35 40 45

270

Gly Ser Arg Trp Gln Arg Gly Phe Pro Gln Leu Ala Gly Gly Val Ile  
 50 55 60

Leu Gly Val Ala Leu Trp Leu Arg His Asp Pro Gln Thr Thr Asn Leu  
 65 70 75 80

Leu Tyr Leu Glu Leu Gly Asp Lys Pro Ala Pro Asn Thr Phe Tyr Val  
 85 90 95

Gly Ile Tyr Ile Leu Ile Ala Val Gly Ala Val Met Met Phe Val Gly  
 100 105 110

Phe Leu Gly Cys Tyr Gly Ala Ile Gln Glu Ser Gln Cys Leu Leu Gly  
 115 120 125

Thr Phe Phe Thr Cys Leu Val Ile Leu Phe Ala Cys Glu Val Ala Ala  
 130 135 140

Gly Ile Trp Gly Phe Val Asn Lys Asp Gln Ile Ala Lys Asp Val Lys  
 145 150 155 160

Gln Phe Tyr Asp Gln Ala Leu Gln Gln Ala Val Val Asp Asp Asp Ala  
 165 170 175

Asn Asn Ala Lys Ala Val Val Lys Thr Phe His Glu Thr Leu Asp Cys  
 180 185 190

Cys Gly Ser Ser Thr Leu Thr Ala Leu Thr Thr Ser Val Leu Lys Asn  
 195 200 205

Asn Leu Cys Pro Ser Gly Ser Asn Ile Ile Ser Asn Leu Phe Lys Glu  
 210 215 220

Asp Cys His Gln Lys Ile Asp Asp Leu Phe Ser Gly Lys Leu Tyr Leu  
 225 230 235 240

Ile Gly Ile Ala Ala Ile Val Val Ala Val Ile Met Ile Phe Glu Met  
 245 250 255

Ile Leu Ser Met Val Leu Cys Cys Gly Ile Arg Asn Ser Ser Val Tyr  
 260 265 270

&lt;210&gt; 202

&lt;211&gt; 303

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

271

&lt;400&gt; 202

Met Ser Gly Ala Val Thr Ser His Leu Pro Gln Ala Gly Leu Phe Cys  
 1 5 10 15

Thr Ala Cys Leu Gly Arg Trp Trp Glu Ser Leu Trp Pro Ser Ala Leu  
 20 25 30

Pro Trp Gln Trp Gly Gln Leu Gly His Leu Gly Gly Ala Arg Leu Pro  
 35 40 45

Gln Ala Arg Pro Trp Asp Leu Ser Arg Cys Leu Val Val Ala Cys Phe  
 50 55 60

Ser Pro Gly Met Trp Glu Arg His Gln Thr Gln Asp Val Pro Leu Pro  
 65 70 75 80

Ala Pro Glu Ala Pro Ser Pro Asp Glu Leu Ala Gly Gly Val Ile Leu  
 85 90 95

Gly Val Ala Leu Trp Leu Arg His Asp Pro Gln Thr Thr Asn Leu Leu  
 100 105 110

Tyr Leu Glu Leu Gly Asp Lys Pro Ala Pro Asn Thr Phe Tyr Val Gly  
 115 120 125

Ile Tyr Ile Leu Ile Ala Val Gly Ala Val Met Met Phe Val Gly Phe  
 130 135 140

Leu Gly Cys Tyr Gly Ala Ile Gln Glu Ser Gln Cys Leu Leu Gly Thr  
 145 150 155 160

Phe Phe Thr Cys Leu Val Ile Leu Phe Ala Cys Glu Val Ala Ala Gly  
 165 170 175

Ile Trp Gly Phe Val Asn Lys Asp Gln Ile Ala Lys Asp Val Lys Gln  
 180 185 190

Phe Tyr Asp Gln Ala Leu Gln Gln Ala Val Val Asp Asp Asp Ala Asn  
 195 200 205

Asn Ala Lys Ala Val Val Lys Thr Phe His Glu Thr Leu Asp Cys Cys  
 210 215 220

Gly Ser Ser Thr Leu Thr Ala Leu Thr Thr Ser Val Leu Lys Asn Asn  
 225 230 235 240

272

Leu Cys Pro Ser Gly Ser Asn Ile Ile Ser Asn Leu Phe Lys Glu Asp  
                                   245                                  250                                  255

Cys His Gln Lys Ile Asp Asp Leu Phe Ser Gly Lys Leu Tyr Leu Ile  
                                   260                                  265                                  270

Gly Ile Ala Ala Ile Val Val Ala Val Ile Met Ile Phe Glu Met Ile  
                                   275                                  280                                  285

Leu Ser Met Val Leu Cys Cys Gly Ile Arg Asn Ser Ser Val Tyr  
                                   290                                  295                                  300

<210> 203

<211> 420

<212> PRT

<213> Homo sapien

<400> 203

Met Leu Pro Ser Gln Gly Ala Trp Gly Ser Ser Gly Gly Leu Ala Tyr  
   1                                  5                                  10                                  15

Thr Pro Trp Ser Ser Cys Pro Arg Trp Gly Ala Gly Leu Gln Pro Ser  
                                   20                                  25                                  30

Ala Gln Gly Leu Gly Ile Gln Leu Asp Pro Pro His Thr Ala Ala Arg  
                                   35                                  40                                  45

Phe Lys Cys Arg Ser Arg Asn Gly Ser Ala Ala Val Gln Pro Arg Leu  
                                   50                                  55                                  60

Gly Gly Arg Ser Gln Gln Gly Pro Pro Thr Leu Phe Ser His His Thr  
   65                                  70                                  75                                  80

Gly Glu Ala Ala Leu Val Pro Val Pro Val Pro Gly Leu Pro Ser Gln  
                                   85                                  90                                  95

Pro Arg Pro Thr Val Gly Pro Thr Leu Cys Leu Leu Met Pro Leu Pro  
                                   100                                  105                                  110

Pro His Ala Lys Ser Gln Arg Leu Trp Glu Arg Val Lys Ala Val Gly  
                                   115                                  120                                  125

Gly Gly Trp Gln Val Gln Ala Val Gly Gly Gly Cys Gly Arg Trp Arg  
                                   130                                  135                                  140

Ala Pro Pro Gln Val Ser Ser Cys Glu Ala Pro Val Ala Ser Thr Gln

273

145		150		155		160									
Ser	Ala	His	Glu	Val	Pro	Ser	Pro	His	Val	Ala	Ser	Leu	Val	Ser	Val
				165					170					175	
Cys	Val	Met	Glu	Glu	Val	Thr	Glu	Ala	Gln	Lys	Thr	His	Gln	Ala	Arg
			180					185					190		
Leu	Gly	Cys	Glu	Val	Pro	Cys	Cys	Ser	Ser	Leu	Ala	Val	Ser	Asn	Pro
		195					200					205			
Thr	Ser	Ser	Gln	Leu	Gly	Gly	Pro	Trp	Trp	Val	Arg	His	Pro	Gly	Pro
	210					215					220				
Ser	Gly	Val	Leu	Gly	Cys	Gly	Glu	Cys	Val	Gly	Thr	His	Leu	Val	Ser
225					230					235					240
Leu	Ser	Pro	Gln	Gly	Ile	Tyr	Ile	Leu	Ile	Ala	Val	Gly	Ala	Val	Met
				245					250					255	
Met	Phe	Val	Gly	Phe	Leu	Gly	Cys	Tyr	Gly	Ala	Ile	Gln	Glu	Ser	Gln
			260					265					270		
Cys	Leu	Leu	Gly	Thr	Phe	Phe	Thr	Cys	Leu	Val	Ile	Leu	Phe	Ala	Cys
		275					280					285			
Glu	Val	Ala	Ala	Gly	Ile	Trp	Gly	Phe	Val	Asn	Lys	Asp	Gln	Ile	Ala
	290					295					300				
Lys	Asp	Val	Lys	Gln	Phe	Tyr	Asp	Gln	Ala	Leu	Gln	Gln	Ala	Val	Val
305					310					315					320
Asp	Asp	Asp	Ala	Asn	Asn	Ala	Lys	Ala	Val	Val	Lys	Thr	Phe	His	Glu
				325					330					335	
Thr	Leu	Asp	Cys	Cys	Gly	Ser	Ser	Thr	Leu	Thr	Ala	Leu	Thr	Thr	Ser
			340					345					350		
Val	Leu	Lys	Asn	Asn	Leu	Cys	Pro	Ser	Gly	Ser	Asn	Ile	Ile	Ser	Asn
		355					360					365			
Leu	Phe	Lys	Glu	Asp	Cys	His	Gln	Lys	Ile	Asp	Asp	Leu	Phe	Ser	Gly
	370					375				380					
Lys	Leu	Tyr	Leu	Ile	Gly	Ile	Ala	Ala	Ile	Val	Val	Ala	Val	Ile	Met
385					390					395					400

274

Ile Phe Glu Met Ile Leu Ser Met Val Leu Cys Cys Gly Ile Arg Asn  
 405 410 415

Ser Ser Val Tyr  
 420

<210> 204

<211> 247

<212> PRT

<213> Homo sapien

<400> 204

Ser Pro Ser Cys Val Met Glu Glu Val Thr Glu Ala Gln Lys Thr His  
 1 5 10 15

Gln Ala Arg Leu Gly Cys Glu Val Pro Cys Cys Ser Ser Leu Ala Val  
 20 25 30

Ser Asn Pro Thr Ser Ser Gln Leu Gly Gly Pro Trp Trp Val Arg His  
 35 40 45

Pro Gly Pro Ser Gly Val Leu Gly Cys Gly Glu Cys Val Gly Thr His  
 50 55 60

Leu Val Ser Leu Ser Pro Gln Gly Ile Tyr Ile Leu Ile Ala Val Gly  
 65 70 75 80

Ala Val Met Met Phe Val Gly Phe Leu Gly Cys Tyr Gly Ala Ile Gln  
 85 90 95

Glu Ser Gln Cys Leu Leu Gly Thr Phe Phe Thr Cys Leu Val Ile Leu  
 100 105 110

Phe Ala Cys Glu Val Ala Ala Gly Ile Trp Gly Phe Val Asn Lys Asp  
 115 120 125

Gln Ile Ala Lys Asp Val Lys Gln Phe Tyr Asp Gln Ala Leu Gln Gln  
 130 135 140

Ala Val Val Asp Asp Asp Ala Asn Asn Ala Lys Ala Val Val Lys Thr  
 145 150 155 160

Phe His Glu Thr Leu Asp Cys Cys Gly Ser Ser Thr Leu Thr Ala Leu  
 165 170 175

275

Thr Thr Ser Val Leu Lys Asn Asn Leu Cys Pro Ser Gly Ser Asn Ile  
 180 185 190

Ile Ser Asn Leu Phe Lys Glu Asp Cys His Gln Lys Ile Asp Asp Leu  
 195 200 205

Phe Ser Gly Lys Leu Tyr Leu Ile Gly Ile Ala Ala Ile Val Val Ala  
 210 215 220

Val Ile Met Ile Phe Glu Met Ile Leu Ser Met Val Leu Cys Cys Gly  
 225 230 235 240

Ile Arg Asn Ser Ser Val Tyr  
 245

<210> 205  
 <211> 236  
 <212> PRT  
 <213> Homo sapien

<400> 205

Met Gly Val Glu Gly Cys Thr Lys Cys Ile Lys Tyr Leu Leu Phe Val  
 1 5 10 15

Phe Asn Phe Val Phe Trp Leu Ala Gly Gly Val Ile Leu Gly Val Ala  
 20 25 30

Leu Trp Leu Arg His Asp Pro Gln Thr Thr Asn Leu Leu Tyr Leu Glu  
 35 40 45

Leu Gly Asp Lys Pro Ala Pro Asn Thr Phe Tyr Val Gly Ile Tyr Ile  
 50 55 60

Leu Ile Ala Val Gly Ala Val Met Met Phe Val Gly Phe Leu Gly Cys  
 65 70 75 80

Tyr Gly Ala Ile Gln Glu Ser Gln Cys Leu Leu Gly Thr Phe Phe Thr  
 85 90 95

Cys Leu Val Ile Leu Phe Ala Cys Glu Val Ala Ala Gly Ile Trp Gly  
 100 105 110

Phe Val Asn Lys Asp Gln Ile Ala Lys Asp Val Lys Gln Phe Tyr Asp  
 115 120 125

Gln Ala Leu Gln Gln Ala Val Val Asp Asp Asp Ala Asn Asn Ala Lys  
 130 135 140

276

Ala Val Val Lys Thr Phe His Glu Thr Leu Asp Cys Cys Gly Ser Ser  
145 150 155 160

Thr Leu Thr Ala Leu Thr Thr Ser Val Leu Lys Asn Asn Leu Cys Pro  
165 170 175

Ser Gly Ser Asn Ile Ile Ser Asn Leu Phe Lys Glu Asp Cys His Gln  
180 185 190

Lys Ile Asp Asp Leu Phe Ser Gly Lys Leu Tyr Leu Ile Gly Ile Ala  
195 200 205

Ala Ile Val Val Ala Val Ile Met Ile Phe Glu Met Ile Leu Ser Met  
210 215 220

Val Leu Cys Cys Gly Ile Arg Asn Ser Ser Val Tyr  
225 230 235

<210> 206  
<211> 256  
<212> PRT  
<213> Homo sapien

<400> 206

Met Gly Val Glu Gly Cys Thr Lys Cys Ile Lys Tyr Leu Leu Phe Val  
1 5 10 15

Phe Asn Phe Val Phe Trp Leu Ala Gly Gly Val Ile Leu Gly Val Ala  
20 25 30

Leu Trp Leu Arg His Asp Pro Gln Thr Thr Asn Leu Leu Tyr Leu Glu  
35 40 45

Leu Gly Asp Lys Pro Ala Pro Asn Thr Phe Tyr Val Gly Ile Tyr Ile  
50 55 60

Leu Ile Ala Val Gly Ala Val Met Met Phe Val Gly Phe Leu Gly Cys  
65 70 75 80

Tyr Gly Ala Ile Gln Glu Ser Gln Cys Leu Leu Gly Thr Phe Phe Thr  
85 90 95

Cys Leu Val Ile Leu Phe Ala Cys Glu Val Ala Ala Gly Ile Trp Gly  
100 105 110



277

Phe Val Asn Lys Asp Gln Ile Ala Lys Asp Val Lys Gln Phe Tyr Asp  
 115 120 125

Gln Ala Leu Gln Gln Ala Val Val Asp Asp Asp Ala Asn Asn Ala Lys  
 130 135 140

Ala Val Val Lys Thr Phe His Glu Thr Leu Asp Cys Cys Gly Ser Ser  
 145 150 155 160

Thr Leu Thr Ala Leu Thr Thr Ser Val Leu Lys Asn Asn Leu Cys Pro  
 165 170 175

Ser Gly Ser Asn Ile Ile Ser Asn Leu Phe Lys Glu Asp Cys His Gln  
 180 185 190

Lys Ile Asp Asp Leu Phe Ser Gly Lys Leu Tyr Leu Ile Gly Ile Ala  
 195 200 205

Ala Ile Val Val Ala Val Ile Met Ile Phe Glu Met Ile Leu Ser Met  
 210 215 220

Val Leu Asn Asp Asn Leu Cys Ile Ile Gly Lys Val Arg Ile Ser Gly  
 225 230 235 240

Arg Gln Gly Phe Tyr Pro Asn Gln Gln His Lys Arg Gln Tyr Asn Cys  
 245 250 255

<210> 207

<211> 210

<212> PRT

<213> Homo sapien

<400> 207

Met Gly Val Glu Gly Cys Thr Lys Cys Ile Lys Tyr Leu Leu Phe Val  
 1 5 10 15

Phe Asn Phe Val Phe Trp Leu Ala Gly Gly Val Ile Leu Gly Val Ala  
 20 25 30

Leu Trp Leu Arg His Asp Pro Gln Thr Thr Asn Leu Leu Tyr Leu Glu  
 35 40 45

Leu Gly Asp Lys Pro Ala Pro Asn Thr Phe Tyr Val Gly Ile Tyr Ile  
 50 55 60

Leu Ile Ala Val Gly Ala Val Met Met Phe Val Gly Phe Leu Gly Cys  
 65 70 75 80

278

Tyr Gly Ala Ile Gln Glu Ser Gln Cys Leu Leu Gly Thr Phe Phe Thr  
85 90 95

Cys Leu Val Ile Leu Phe Ala Cys Glu Val Ala Ala Gly Ile Trp Gly  
100 105 110

Phe Val Asn Lys Asp Gln Ile Ala Lys Asp Val Lys Gln Phe Tyr Asp  
115 120 125

Gln Ala Leu Gln Gln Ala Val Val Asp Asp Asp Ala Asn Asn Ala Lys  
130 135 140

Ala Val Val Lys Thr Phe His Glu Thr Leu Asp Cys Cys Gly Ser Ser  
145 150 155 160

Thr Leu Thr Ala Leu Thr Thr Ser Val Leu Lys Asn Asn Leu Cys Pro  
165 170 175

Ser Gly Ser Asn Ile Ile Ser Asn Leu Phe Lys Glu Asp Cys His Gln  
180 185 190

Lys Ile Asp Asp Leu Phe Ser Gly Lys Leu Tyr Leu Ala Ala Thr Thr  
195 200 205

Leu Arg  
210

<210> 208  
<211> 58  
<212> PRT  
<213> Homo sapien

<400> 208

Asn His Ile Glu Pro Leu Lys Ile Gln Trp Leu Asp Val Leu Gln Arg  
1 5 10 15

Glu Pro Arg Pro Phe Pro Lys Leu Arg Ile Leu Arg Lys Val Glu Lys  
20 25 30

Ile Asp Asp Phe Lys Ala Glu Asp Phe Gln Ile Glu Gly Tyr Asn Pro  
35 40 45

His Pro Thr Ile Lys Met Glu Met Ala Val  
50 55

279

<210> 209  
 <211> 91  
 <212> PRT  
 <213> Homo sapien

<400> 209

Lys Phe Ser Gly Ser Met Cys Phe Ser Glu Asn Pro Asp Leu Ser Gln  
 1 5 10 15

Ser Ser Gly Phe Phe Glu Lys Leu Arg Lys Leu Met Thr Ser Lys Leu  
 20 25 30

Lys Thr Phe Arg Leu Lys Gly Thr Ile Arg Ile Gln Leu Lys Trp  
 35 40 45

Lys Trp Leu Phe Arg Val Leu Ser Lys Glu Leu Glu Gly Tyr Cys Gln  
 50 55 60

Ser Leu Gly Val Gly Leu Asp Ala Glu Val Lys Val Leu Phe Ala Leu  
 65 70 75 80

Lys Glu Lys Gly Thr Arg Ser Lys Ile Cys Pro  
 85 90

<210> 210  
 <211> 86  
 <212> PRT  
 <213> Homo sapien

<400> 210

Met Asp Asp Ser Glu Val Glu Ser Thr Ala Ser Ile Leu Ala Ser Val  
 1 5 10 15

Lys Glu Gln Glu Ala Gln Phe Glu Lys Leu Thr Arg Ala Leu Glu Glu  
 20 25 30

Glu Arg Arg His Val Ser Ala Gln Leu Glu Arg Val Arg Val Ser Pro  
 35 40 45

Gln Asp Ala Asn Pro Leu Met Ala Asn Gly Thr Ser Pro Phe Arg Lys  
 50 55 60

Lys Cys Lys Lys Lys Ser Ile Phe Ser Ser Arg Val Glu Leu Phe Lys  
 65 70 75 80

Glu Ser Lys Ile Ile Ser  
 85

280

<210> 211  
 <211> 107  
 <212> PRT  
 <213> Homo sapien

<400> 211

Met Ile Ile Tyr Tyr Met Val His Asn His Val Asp Ala Gln Cys Met  
 1 5 10 15

Ile Leu Gln Asn Arg Leu Ser Val Ser Arg Arg Val Leu Arg Gly Met  
 20 25 30

Val Met Tyr Thr Ser Lys Asp Arg Tyr Phe Tyr Phe Gly Lys Leu Asp  
 35 40 45

Gly Gln Ile Ser Ser Ala Tyr Pro Ser Gln Glu Gly Gln Val Leu Val  
 50 55 60

Gly Ile Tyr Gly Gln Tyr Gln Leu Leu Gly Ile Lys Ser Ile Gly Phe  
 65 70 75 80

Glu Trp Asn Tyr Pro Leu Glu Glu Pro Thr Thr Glu Pro Pro Val Asn  
 85 90 95

Leu Thr Tyr Ser Ala Asn Ser Pro Val Gly Arg  
 100 105

<210> 212  
 <211> 90  
 <212> PRT  
 <213> Homo sapien

<400> 212

Tyr Cys Arg Ile Gly Leu Arg Val Ala Arg Val Leu Arg Gly Met Val  
 1 5 10 15

Met Tyr Thr Ser Lys Asp Arg Tyr Phe Tyr Phe Gly Lys Leu Asp Gly  
 20 25 30

Gln Ile Ser Ser Ala Tyr Pro Ser Gln Glu Gly Gln Val Leu Val Gly  
 35 40 45

Ile Tyr Gly Gln Tyr Gln Leu Leu Gly Ile Lys Ser Ile Gly Phe Glu  
 50 55 60

Trp Asn Tyr Pro Leu Glu Glu Pro Thr Thr Glu Pro Pro Val Asn Leu  
 65 70 75 80

281

Thr Tyr Ser Ala Asn Ser Pro Val Gly Arg  
85 90

<210> 213  
<211> 193  
<212> PRT  
<213> Homo sapien

<400> 213

Met Asp Glu Arg Pro Pro Gly Gln Val Thr Gly Glu Ser Pro Gly Met  
1 5 10 15

His Arg Pro Glu Ala Met Leu Leu Leu Leu Thr Leu Ala Leu Leu Gly  
20 25 30

Gly Pro Thr Trp Ala Gly Lys Met Tyr Gly Pro Gly Gly Gly Lys Tyr  
35 40 45

Phe Ser Thr Thr Glu Asp Tyr Asp His Glu Ile Thr Gly Leu Arg Val  
50 55 60

Ser Val Gly Leu Leu Leu Val Lys Ser Val Gln Val Lys Leu Gly Asp  
65 70 75 80

Ser Trp Asp Val Lys Leu Gly Ala Leu Gly Gly Asn Thr Gln Glu Val  
85 90 95

Thr Leu Gln Pro Gly Glu Tyr Ile Thr Lys Val Phe Val Ala Phe Gln  
100 105 110

Ala Phe Leu Arg Gly Met Val Met Tyr Thr Ser Lys Asp Arg Tyr Phe  
115 120 125

Tyr Phe Gly Lys Leu Asp Gly Gln Ile Ser Ser Ala Tyr Pro Ser Gln  
130 135 140

Glu Gly Gln Val Leu Val Gly Ile Tyr Gly Gln Tyr Gln Leu Leu Gly  
145 150 155 160

Ile Lys Ser Ile Gly Phe Glu Trp Asn Tyr Pro Leu Glu Glu Pro Thr  
165 170 175

Thr Glu Pro Pro Val Asn Leu Thr Tyr Ser Ala Asn Ser Pro Val Gly  
180 185 190

282

Arg

<210> 214  
 <211> 189  
 <212> PRT  
 <213> Homo sapien

<400> 214

Ala Ala Ala Arg Ala Gly Gly Glu Ser Pro Gly Met His Arg Pro Glu  
 1 5 10 15

Ala Met Leu Leu Leu Leu Thr Leu Ala Leu Leu Gly Gly Pro Thr Trp  
 20 25 30

Ala Gly Lys Met Tyr Gly Pro Gly Gly Gly Lys Tyr Phe Ser Thr Thr  
 35 40 45

Glu Asp Tyr Asp His Glu Ile Thr Gly Leu Arg Val Ser Val Gly Leu  
 50 55 60

Leu Leu Val Lys Ser Val Gln Val Lys Leu Gly Asp Ser Trp Asp Val  
 65 70 75 80

Lys Leu Gly Ala Leu Gly Gly Asn Thr Gln Glu Val Thr Leu Gln Pro  
 85 90 95

Gly Glu Tyr Ile Thr Lys Val Phe Val Ala Phe Gln Ala Phe Leu Arg  
 100 105 110

Gly Met Val Met Tyr Thr Ser Lys Asp Arg Tyr Phe Tyr Phe Gly Lys  
 115 120 125

Leu Asp Gly Gln Ile Ser Ser Ala Tyr Pro Ser Gln Glu Gly Gln Val  
 130 135 140

Leu Val Gly Ile Tyr Gly Gln Tyr Gln Leu Leu Gly Ile Lys Ser Ile  
 145 150 155 160

Gly Phe Glu Trp Asn Tyr Pro Leu Glu Glu Pro Thr Thr Glu Pro Pro  
 165 170 175

Val Asn Leu Thr Tyr Ser Ala Asn Ser Pro Val Gly Arg  
 180 185

<210> 215  
 <211> 202

283

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 215

Met Asp Arg Pro Pro Gly Arg Trp Arg Val Pro Gly Thr Thr Arg Arg  
 1 5 10 15

Pro Val Thr Gly Glu Ser Pro Gly Met His Arg Pro Glu Ala Met Leu  
 20 25 30

Leu Leu Leu Thr Leu Ala Leu Leu Gly Gly Pro Thr Trp Ala Gly Lys  
 35 40 45

Met Tyr Gly Pro Gly Gly Gly Lys Tyr Phe Ser Thr Thr Glu Asp Tyr  
 50 55 60

Asp His Glu Ile Thr Gly Leu Arg Val Ser Val Gly Leu Leu Leu Val  
 65 70 75 80

Lys Ser Val Gln Val Lys Leu Gly Asp Ser Trp Asp Val Lys Leu Gly  
 85 90 95

Ala Leu Gly Gly Asn Thr Gln Glu Val Thr Leu Gln Pro Gly Glu Tyr  
 100 105 110

Ile Thr Lys Val Phe Val Ala Phe Gln Ala Phe Leu Arg Gly Met Val  
 115 120 125

Met Tyr Thr Ser Lys Asp Arg Tyr Phe Tyr Phe Gly Lys Leu Asp Gly  
 130 135 140

Gln Ile Ser Ser Ala Tyr Pro Ser Gln Glu Gly Gln Val Leu Val Gly  
 145 150 155 160

Ile Tyr Gly Gln Tyr Gln Leu Leu Gly Ile Lys Ser Ile Gly Phe Glu  
 165 170 175

Trp Asn Tyr Pro Leu Glu Glu Pro Thr Thr Glu Pro Pro Val Asn Leu  
 180 185 190

Thr Tyr Ser Ala Asn Ser Pro Val Gly Arg  
 195 200

&lt;210&gt; 216

&lt;211&gt; 208

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

284

&lt;400&gt; 216

Cys Arg Ala Ala Gln Cys Asp Gly Ser Ala Ala Gly Gln Val Glu Gly  
 1 5 10 15

Ala Arg His Asn Gln Thr Pro Ser His Gly Glu Ser Pro Gly Met His  
 20 25 30

Arg Pro Glu Ala Met Leu Leu Leu Leu Thr Leu Ala Leu Leu Gly Gly  
 35 40 45

Pro Thr Trp Ala Gly Lys Met Tyr Gly Pro Gly Gly Gly Lys Tyr Phe  
 50 55 60

Ser Thr Thr Glu Asp Tyr Asp His Glu Ile Thr Gly Leu Arg Val Ser  
 65 70 75 80

Val Gly Leu Leu Leu Val Lys Ser Val Gln Val Lys Leu Gly Asp Ser  
 85 90 95

Trp Asp Val Lys Leu Gly Ala Leu Gly Gly Asn Thr Gln Glu Val Thr  
 100 105 110

Leu Gln Pro Gly Glu Tyr Ile Thr Lys Val Phe Val Ala Phe Gln Ala  
 115 120 125

Phe Leu Arg Gly Met Val Met Tyr Thr Ser Lys Asp Arg Tyr Phe Tyr  
 130 135 140

Phe Gly Lys Leu Asp Gly Gln Ile Ser Ser Ala Tyr Pro Ser Gln Glu  
 145 150 155 160

Gly Gln Val Leu Val Gly Ile Tyr Gly Gln Tyr Gln Leu Leu Gly Ile  
 165 170 175

Lys Ser Ile Gly Phe Glu Trp Asn Tyr Pro Leu Glu Glu Pro Thr Thr  
 180 185 190

Glu Pro Pro Val Asn Leu Thr Tyr Ser Ala Asn Ser Pro Val Gly Arg  
 195 200 205

&lt;210&gt; 217

&lt;211&gt; 189

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 217



285

Met His Val Glu Arg Arg Ser Val Met Asp Arg Gly Arg Gly Glu Val  
 1 5 10 15

Ala Met Leu Leu Leu Leu Thr Leu Ala Leu Leu Gly Gly Pro Thr Trp  
 20 25 30

Ala Gly Lys Met Tyr Gly Pro Gly Gly Gly Lys Tyr Phe Ser Thr Thr  
 35 40 45

Glu Asp Tyr Asp His Glu Ile Thr Gly Leu Arg Val Ser Val Gly Leu  
 50 55 60

Leu Leu Val Lys Ser Val Gln Val Lys Leu Gly Asp Ser Trp Asp Val  
 65 70 75 80

Lys Leu Gly Ala Leu Gly Gly Asn Thr Gln Glu Val Thr Leu Gln Pro  
 85 90 95

Gly Glu Tyr Ile Thr Lys Val Phe Val Ala Phe Gln Ala Phe Leu Arg  
 100 105 110

Gly Met Val Met Tyr Thr Ser Lys Asp Arg Tyr Phe Tyr Phe Gly Lys  
 115 120 125

Leu Asp Gly Gln Ile Ser Ser Ala Tyr Pro Ser Gln Glu Gly Gln Val  
 130 135 140

Leu Val Gly Ile Tyr Gly Gln Tyr Gln Leu Leu Gly Ile Lys Ser Ile  
 145 150 155 160

Gly Phe Glu Trp Asn Tyr Pro Leu Glu Glu Pro Thr Thr Glu Pro Pro  
 165 170 175

Val Asn Leu Thr Tyr Ser Ala Asn Ser Pro Val Gly Arg  
 180 185

&lt;210&gt; 218

&lt;211&gt; 171

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 218

Met Leu Glu Arg Arg Ile Val Asn Gly Ser Pro Gly Gln Val Gln Ser  
 1 5 10 15

Gln Met Tyr Gly Pro Gly Gly Gly Lys Tyr Phe Ser Thr Thr Glu Asp

286

20

25

30

Tyr Asp His Glu Ile Thr Gly Leu Arg Val Ser Val Gly Leu Leu Leu  
 35 40 45

Val Lys Ser Val Gln Val Lys Leu Gly Asp Ser Trp Asp Val Lys Leu  
 50 55 60

Gly Ala Leu Gly Gly Asn Thr Gln Glu Val Thr Leu Gln Pro Gly Glu  
 65 70 75 80

Tyr Ile Thr Lys Val Phe Val Ala Phe Gln Ala Phe Leu Arg Gly Met  
 85 90 95

Val Met Tyr Thr Ser Lys Asp Arg Tyr Phe Tyr Phe Gly Lys Leu Asp  
 100 105 110

Gly Gln Ile Ser Ser Ala Tyr Pro Ser Gln Glu Gly Gln Val Leu Val  
 115 120 125

Gly Ile Tyr Gly Gln Tyr Gln Leu Leu Gly Ile Lys Ser Ile Gly Phe  
 130 135 140

Glu Trp Asn Tyr Pro Leu Glu Glu Pro Thr Thr Glu Pro Pro Val Asn  
 145 150 155 160

Leu Thr Tyr Ser Ala Asn Ser Pro Val Gly Arg  
 165 170

&lt;210&gt; 219

&lt;211&gt; 171

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (6)..(6)

&lt;223&gt; X=any amino acid

&lt;400&gt; 219

His Ala Arg Ala Ala Xaa Cys Asp Gly Ser Pro Gly Gln Val Gln Ser  
 1 5 10 15

Gln Met Tyr Gly Pro Gly Gly Gly Lys Tyr Phe Ser Thr Thr Glu Asp  
 20 25 30

Tyr Asp His Glu Ile Thr Gly Leu Arg Val Ser Val Gly Leu Leu Leu

287

35

40

45

Val Lys Ser Val Gln Val Lys Leu Gly Asp Ser Trp Asp Val Lys Leu  
 50 55 60

Gly Ala Leu Gly Gly Asn Thr Gln Glu Val Thr Leu Gln Pro Gly Glu  
 65 70 75 80

Tyr Ile Thr Lys Val Phe Val Ala Phe Gln Ala Phe Leu Arg Gly Met  
 85 90 95

Val Met Tyr Thr Ser Lys Asp Arg Tyr Phe Tyr Phe Gly Lys Leu Asp  
 100 105 110

Gly Gln Ile Ser Ser Ala Tyr Pro Ser Gln Glu Gly Gln Val Leu Val  
 115 120 125

Gly Ile Tyr Gly Gln Tyr Gln Leu Leu Gly Ile Lys Ser Ile Gly Phe  
 130 135 140

Glu Trp Asn Tyr Pro Leu Glu Glu Pro Thr Thr Glu Pro Pro Val Asn  
 145 150 155 160

Leu Thr Tyr Ser Ala Asn Ser Pro Val Gly Arg  
 165 170

&lt;210&gt; 220

&lt;211&gt; 156

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 220

Met Val Leu Asp Ser Leu His Pro Gly Lys Glu Asp Gly Gly Ala Glu  
 1 5 10 15

Asp Pro Gly Cys Ala Gly Pro Ser Gln Ile Trp Thr Ser Lys Ala Leu  
 20 25 30

Pro Leu Ser Ser Val Gln Val Lys Leu Gly Asp Ser Trp Asp Val Lys  
 35 40 45

Leu Gly Ala Leu Gly Gly Asn Thr Gln Glu Val Thr Leu Gln Pro Gly  
 50 55 60

Glu Tyr Ile Thr Lys Val Phe Val Ala Phe Gln Ala Phe Leu Arg Gly  
 65 70 75 80

Met. Val Met Tyr Thr Ser Lys Asp Arg Tyr Phe Tyr Phe Gly Lys Leu  
85 90 95

Asp Gly Gln Ile Ser Ser Ala Tyr Pro Ser Gln Glu Gly Gln Val Leu  
100 105 110

Val Gly Ile Tyr Gly Gln Tyr Gln Leu Leu Gly Ile Lys Ser Ile Gly  
115 120 125

Phe Glu Trp Asn Tyr Pro Leu Glu Glu Pro Thr Thr Glu Pro Pro Val  
130 135 140

Asn Leu Thr Tyr Ser Ala Asn Ser Pro Val Gly Arg  
145                      150                      155

<210>	221
<211>	156
<212>	PRT
<213>	Homo sapien

<400> 221

Trp Cys Trp Thr Leu Cys Ile Pro Gly Arg Arg Met Gly Ala Leu Arg  
1 5 10 15

Thr Arg Asp Val Leu Gly His Pro Arg Ser Gly Arg Pro Lys Leu Cys  
20 25 30

Leu Ser Pro Ser Val Gln Val Lys Leu Gly Asp Ser Trp Asp Val Lys  
35 40 45

Leu Gly Ala Leu Gly Gly Asn Thr Gln Glu Val Thr Leu Gln Pro Gly  
50 55 60

Glu Tyr Ile Thr Lys Val Phe Val Ala Phe Gln Ala Phe Leu Arg Gly  
65 70 75 80

Met Val Met Tyr Thr Ser Lys Asp Arg Tyr Phe Tyr Phe Gly Lys Leu  
85 90 95

Asp Gly Gln Ile Ser Ser Ala Tyr Pro Ser Gln Glu Gly Gln Val Leu  
100 105 110

Val Gly Ile Tyr Gly Gln Tyr Gln Leu Leu Gly Ile Lys Ser Ile Gly  
115 120 125

Phe Glu Trp Asn Tyr Pro Leu Glu Glu Pro Thr Thr Glu Pro Pro Val

289

130                                      135                                      140  
 Asn Leu Thr Tyr Ser Ala Asn Ser Pro Val Gly Arg  
 145                                      150                                      155  
  
 <210> 222  
 <211> 76  
 <212> PRT  
 <213> Homo sapien  
  
 <400> 222  
 Met Val Met Tyr Thr Ser Lys Asp Arg Tyr Phe Tyr Phe Gly Lys Leu  
 1                                      5                                      10                                      15  
  
 Asp Gly Gln Ile Ser Ser Ala Tyr Pro Ser Gln Glu Gly Gln Val Leu  
                                     20                                      25                                      30  
  
 Val Gly Ile Tyr Gly Gln Tyr Gln Leu Leu Gly Ile Lys Ser Ile Gly  
                                     35                                      40                                      45  
  
 Phe Glu Trp Asn Tyr Pro Leu Glu Glu Pro Thr Thr Glu Pro Pro Val  
                                     50                                      55                                      60  
  
 Asn Leu Thr Tyr Ser Ala Asn Ser Pro Val Gly Arg  
 65                                      70                                      75  
  
 <210> 223  
 <211> 139  
 <212> PRT  
 <213> Homo sapien  
  
 <400> 223  
 Leu Cys Arg Gly Gln Lys Glu Ser Ser Thr Thr Pro Ser Glu Val Leu  
 1                                      5                                      10                                      15  
  
 Trp Ile Ser Val Pro Val Pro Gln Ser Leu Lys Ser Gln Ala Ser Arg  
                                     20                                      25                                      30  
  
 Pro Pro Leu Pro Thr Val Pro His Pro Arg Pro Thr Gln Arg Ala Ser  
                                     35                                      40                                      45  
  
 Ala Gly His Ser Val Pro Gly Phe Ser Glu Cys Ser Arg Gly Leu Arg  
                                     50                                      55                                      60  
  
 Glu Ala Thr His Ser Ser Ile His Ser Ala Asn Ile Cys Gln Gly Arg  
 65                                      70                                      75                                      80

290

Val Leu Thr Arg Leu Ala Trp His Trp Gly Tyr Lys Glu Glu Ala Arg  
                     85                    90                    95

Phe Gln Leu Ser Ala Tyr Thr Leu Trp Trp Gly Leu Val Gln Arg Gln  
                     100                    105                    110

Ile Val Ala Val His Phe Ala Ile Cys Met Asp Gly Asp Thr Cys Arg  
                     115                    120                    125

Ser Leu Cys Val Gly Thr Cys Pro Glu Val Arg  
                     130                    135

&lt;210&gt; 224

&lt;211&gt; 568

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 224

Met Val Lys Leu Ala Lys Ala Gly Lys Asn Gln Gly Asp Pro Lys Lys  
   1                    5                    10                    15

Met Ala Pro Pro Pro Lys Glu Val Glu Glu Asp Ser Glu Asp Glu Glu  
                     20                    25                    30

Met Ser Glu Asp Glu Glu Asp Asp Ser Ser Gly Glu Glu Val Val Ile  
                     35                    40                    45

Pro Gln Lys Lys Gly Lys Lys Ala Ala Ala Thr Ser Ala Lys Lys Val  
                     50                    55                    60

Val Val Ser Pro Thr Lys Lys Val Ala Val Ala Thr Pro Ala Lys Lys  
   65                    70                    75                    80

Ala Ala Val Thr Pro Gly Lys Lys Ala Ala Ala Thr Pro Ala Lys Lys  
                     85                    90                    95

Thr Val Thr Pro Ala Lys Ala Val Thr Thr Pro Gly Lys Lys Gly Ala  
                     100                    105                    110

Thr Pro Gly Lys Ala Leu Val Ala Thr Pro Gly Lys Lys Gly Ala Ala  
                     115                    120                    125

Ile Pro Ala Lys Gly Ala Lys Asn Gly Lys Asn Ala Lys Lys Glu Asp  
                     130                    135                    140

Ser Asp Glu Glu Glu Asp Asp Asp Ser Glu Glu Asp Glu Glu Asp Asp  
   145                    150                    155                    160

291

Glu Asp Glu Asp Glu Asp Glu Asp Glu Ile Glu Pro Ala Ala Met Lys  
 165 170 175

Ala Ala Ala Ala Ala Pro Ala Ser Glu Asp Glu Asp Asp Glu Asp Asp  
 180 185 190

Glu Asp Asp Glu Asp Asp Asp Asp Asp Glu Glu Asp Asp Ser Glu Glu  
 195 200 205

Glu Ala Met Glu Thr Thr Pro Ala Lys Gly Lys Lys Ala Ala Lys Val  
 210 215 220

Val Pro Val Lys Ala Lys Asn Val Ala Glu Asp Glu Asp Glu Glu Glu  
 225 230 235 240

Asp Asp Glu Asp Glu Asp Asp Asp Asp Asp Glu Asp Asp Glu Asp Asp  
 245 250 255

Asp Asp Glu Asp Asp Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Pro  
 260 265 270

Val Lys Glu Ala Pro Gly Lys Arg Lys Lys Glu Met Ala Lys Gln Lys  
 275 280 285

Ala Ala Pro Glu Ala Lys Lys Gln Lys Val Glu Gly Thr Glu Pro Thr  
 290 295 300

Thr Ala Phe Asn Leu Phe Val Gly Asn Leu Asn Phe Asn Lys Ser Ala  
 305 310 315 320

Pro Glu Leu Lys Thr Gly Ile Ser Asp Val Phe Ala Lys Asn Asp Leu  
 325 330 335

Ala Val Val Asp Val Arg Ile Gly Met Thr Arg Lys Phe Gly Tyr Val  
 340 345 350

Asp Phe Glu Ser Ala Glu Asp Leu Glu Lys Ala Leu Glu Leu Thr Gly  
 355 360 365

Leu Lys Val Phe Gly Asn Glu Ile Lys Leu Glu Lys Pro Lys Gly Lys  
 370 375 380

Asp Ser Lys Lys Glu Arg Asp Ala Arg Thr Leu Leu Ala Lys Asn Leu  
 385 390 395 400

292

Pro Tyr Lys Val Thr Gln Asp Glu Leu Lys Glu Val Phe Glu Asp Ala  
 405 410 415

Ala Glu Ile Arg Leu Val Ser Lys Asp Gly Lys Ser Lys Gly Ile Ala  
 420 425 430

Tyr Ile Glu Phe Lys Thr Glu Ala Asp Ala Glu Lys Thr Phe Glu Glu  
 435 440 445

Lys Gln Gly Thr Glu Ile Asp Gly Arg Ser Ile Ser Leu Tyr Tyr Thr  
 450 455 460

Gly Glu Lys Gly Gln Asn Gln Asp Tyr Arg Gly Gly Lys Asn Ser Thr  
 465 470 475 480

Trp Ser Gly Glu Ser Lys Thr Leu Val Leu Ser Asn Leu Ser Tyr Ser  
 485 490 495

Ala Thr Glu Glu Thr Leu Gln Glu Val Phe Glu Lys Ala Thr Phe Ile  
 500 505 510

Lys Val Pro Gln Asn Gln Asn Gly Lys Ser Lys Gly Tyr Ala Phe Ile  
 515 520 525

Glu Phe Ala Ser Phe Glu Asp Ala Lys Glu Ala Leu Asn Ser Cys Asn  
 530 535 540

Lys Arg Glu Ile Glu Gly Arg Ala Ile Arg Leu Glu Ala Arg Arg Leu  
 545 550 555 560

Pro Arg Arg Gln Arg Arg Arg  
 565

<210> 225  
 <211> 520  
 <212> PRT  
 <213> Homo sapien

<400> 225

Met Val Lys Leu Ala Lys Ala Gly Lys Asn Gln Gly Asp Pro Lys Lys  
 1 5 10 15

Met Ala Pro Pro Pro Lys Glu Val Glu Glu Asp Ser Glu Asp Glu Glu  
 20 25 30

Met Ser Glu Asp Glu Glu Asp Asp Ser Ser Gly Glu Glu Val Val Ile



293

35

40

45

Pro Gln Lys Lys Gly Lys Lys Ala Ala Ala Thr Ser Ala Lys Lys Val  
 50 55 60

Val Val Ser Pro Thr Lys Lys Val Ala Val Ala Thr Pro Ala Lys Lys  
 65 70 75 80

Ala Ala Val Thr Pro Gly Lys Lys Ala Ala Ala Thr Pro Ala Lys Lys  
 85 90 95

Thr Val Thr Pro Ala Lys Ala Val Thr Thr Pro Gly Lys Lys Gly Ala  
 100 105 110

Thr Pro Gly Lys Ala Leu Val Ala Thr Pro Gly Lys Lys Gly Ala Ala  
 115 120 125

Ile Pro Ala Lys Gly Ala Lys Asn Gly Lys Asn Ala Lys Lys Glu Asp  
 130 135 140

Ser Asp Glu Glu Glu Asp Asp Asp Ser Glu Glu Asp Glu Glu Asp Asp  
 145 150 155 160

Glu Asp Glu Asp Glu Asp Glu Asp Glu Ile Glu Pro Ala Ala Met Lys  
 165 170 175

Ala Ala Ala Ala Ala Pro Ala Ser Glu Asp Glu Asp Asp Glu Asp Asp  
 180 185 190

Glu Asp Asp Glu Asp Asp Asp Asp Asp Glu Glu Asp Asp Ser Glu Glu  
 195 200 205

Glu Ala Met Glu Thr Thr Pro Ala Lys Gly Lys Lys Ala Ala Lys Val  
 210 215 220

Val Pro Val Lys Ala Lys Asn Val Ala Glu Asp Glu Asp Glu Glu Glu  
 225 230 235 240

Asp Asp Glu Asp Glu Asp Asp Asp Asp Asp Glu Asp Asp Glu Asp Asp  
 245 250 255

Asp Asp Glu Asp Asp Glu Glu Glu Glu Glu Glu Glu Glu Glu Pro  
 260 265 270

Val Lys Glu Ala Pro Gly Lys Arg Lys Lys Glu Met Ala Lys Gln Lys  
 275 280 285

294

Ala Ala Pro Glu Ala Lys Lys Gln Lys Val Glu Gly Thr Glu Pro Thr  
 290 295 300

Thr Ala Phe Asn Leu Phe Val Gly Asn Leu Asn Phe Asn Lys Ser Ala  
 305 310 315 320

Pro Glu Leu Lys Thr Gly Ile Ser Asp Val Phe Ala Lys Asn Asp Leu  
 325 330 335

Ala Val Val Asp Val Arg Ile Gly Met Thr Arg Lys Phe Gly Tyr Val  
 340 345 350

Asp Phe Glu Ser Ala Glu Asp Leu Glu Lys Ala Leu Glu Leu Thr Gly  
 355 360 365

Leu Lys Val Phe Gly Asn Glu Ile Lys Leu Glu Lys Pro Lys Gly Lys  
 370 375 380

Asp Ser Lys Lys Glu Arg Asp Ala Arg Thr Leu Leu Ala Lys Asn Leu  
 385 390 395 400

Pro Tyr Lys Val Thr Gln Asp Glu Leu Lys Glu Val Phe Glu Asp Ala  
 405 410 415

Ala Glu Ile Arg Leu Val Ser Lys Asp Gly Lys Ser Lys Gly Ile Ala  
 420 425 430

Tyr Ile Glu Phe Lys Thr Glu Ala Asp Ala Glu Lys Thr Phe Glu Glu  
 435 440 445

Lys Gln Gly Thr Glu Ile Asp Gly Arg Ser Ile Ser Leu Tyr Tyr Thr  
 450 455 460

Gly Glu Lys Gly Gln Asn Gln Asp Tyr Arg Gly Gly Lys Asn Ser Thr  
 465 470 475 480

Trp Ser Gly Glu Ser Lys Thr Leu Val Leu Ser Asn Leu Ser Tyr Ser  
 485 490 495

Ala Thr Glu Glu Thr Leu Gln Glu Val Phe Glu Lys Ala Thr Phe Ile  
 500 505 510

Lys Val Pro Arg Pro Arg Pro Arg  
 515 520

295

<210> 226  
 <211> 526  
 <212> PRT  
 <213> Homo sapien

<400> 226

Met Leu Arg Leu Pro Thr Val Phe Arg Gln Met Arg Pro Val Ser Arg  
 1 5 10 15

Val Leu Ala Pro His Leu Thr Arg Ala Tyr Ala Lys Asp Val Lys Phe  
 20 25 30

Gly Ala Asp Ala Arg Ala Leu Met Leu Gln Gly Val Asp Leu Leu Ala  
 35 40 45

Asp Ala Val Ala Val Thr Met Gly Pro Lys Gly Arg Thr Val Ile Ile  
 50 55 60

Glu Gln Ser Trp Gly Ser Pro Lys Val Thr Lys Asp Gly Val Thr Val  
 65 70 75 80

Ala Lys Ser Ile Asp Leu Lys Asp Lys Tyr Lys Asn Ile Gly Ala Lys  
 85 90 95

Leu Val Gln Asp Val Ala Asn Asn Thr Asn Glu Glu Ala Gly Asp Gly  
 100 105 110

Thr Thr Thr Ala Thr Val Leu Ala Arg Ser Ile Ala Lys Glu Gly Phe  
 115 120 125

Glu Lys Ile Ser Lys Gly Ala Asn Pro Val Glu Ile Arg Arg Gly Val  
 130 135 140

Met Leu Ala Val Asp Ala Val Ile Ala Glu Leu Lys Lys Gln Ser Lys  
 145 150 155 160

Pro Val Thr Thr Pro Glu Glu Ile Ala Gln Val Ala Thr Ile Ser Ala  
 165 170 175

Asn Gly Asp Lys Glu Ile Gly Asn Ile Ile Ser Asp Ala Met Lys Lys  
 180 185 190

Val Gly Arg Lys Gly Val Ile Thr Val Lys Asp Gly Lys Thr Leu Asn  
 195 200 205

Asp Glu Leu Glu Ile Ile Glu Gly Met Lys Phe Asp Arg Gly Tyr Ile

296

210		215		220											
Ser	Pro	Tyr	Phe	Ile	Asn	Thr	Ser	Lys	Gly	Gln	Lys	Cys	Glu	Phe	Gln
225					230					235					240
Asp	Ala	Tyr	Val	Leu	Leu	Ser	Glu	Lys	Lys	Ile	Ser	Ser	Ile	Gln	Ser
				245					250					255	
Ile	Val	Pro	Ala	Leu	Glu	Ile	Ala	Asn	Ala	His	Arg	Lys	Pro	Leu	Val
			260					265					270		
Ile	Ile	Ala	Glu	Asp	Val	Asp	Gly	Glu	Ala	Leu	Ser	Thr	Leu	Val	Leu
		275					280					285			
Asn	Arg	Leu	Lys	Val	Gly	Leu	Gln	Val	Val	Ala	Val	Lys	Ala	Pro	Gly
	290					295					300				
Phe	Gly	Asp	Asn	Arg	Lys	Asn	Gln	Leu	Lys	Asp	Met	Ala	Ile	Ala	Thr
305					310					315					320
Gly	Gly	Ala	Val	Phe	Gly	Glu	Glu	Gly	Leu	Thr	Leu	Asn	Leu	Glu	Asp
				325					330					335	
Val	Gln	Pro	His	Asp	Leu	Gly	Lys	Val	Gly	Glu	Val	Ile	Val	Thr	Lys
			340					345					350		
Asp	Asp	Ala	Met	Leu	Leu	Lys	Gly	Lys	Gly	Asp	Lys	Ala	Gln	Ile	Glu
		355					360					365			
Lys	Arg	Ile	Gln	Glu	Ile	Ile	Glu	Gln	Leu	Asp	Val	Thr	Thr	Ser	Glu
	370					375					380				
Tyr	Glu	Lys	Glu	Lys	Leu	Asn	Glu	Arg	Leu	Ala	Lys	Leu	Ser	Asp	Gly
385					390					395					400
Val	Ala	Val	Leu	Lys	Val	Gly	Gly	Thr	Ser	Asp	Val	Glu	Val	Asn	Glu
				405					410					415	
Lys	Lys	Asp	Arg	Val	Thr	Asp	Ala	Leu	Asn	Ala	Thr	Arg	Ala	Ala	Val
			420					425					430		
Glu	Glu	Gly	Ile	Val	Leu	Gly	Gly	Gly	Cys	Ala	Leu	Leu	Arg	Cys	Ile
		435					440					445			
Pro	Ala	Leu	Asp	Ser	Leu	Thr	Pro	Ala	Asn	Glu	Asp	Gln	Lys	Ile	Gly
	450					455					460				

297

Ile Glu Ile Ile Lys Arg Thr Leu Lys Ile Pro Ala Met Thr Ile Ala  
 465 470 475 480

Lys Asn Ala Gly Val Glu Gly Ser Leu Ile Val Glu Lys Ile Met Gln  
 485 490 495

Ser Ser Ser Glu Val Gly Tyr Asp Ala Met Ala Gly Asp Phe Val Asn  
 500 505 510

Met Val Glu Lys Gly Ile Ile Asp Pro Thr Lys Val Asn Gly  
 515 520 525

<210> 227  
 <211> 121  
 <212> PRT  
 <213> Homo sapien

<400> 227

Gln Cys Asp Gly Phe Ala Ala Glu Val Ser Thr Val His Glu Ile Leu  
 1 5 10 15

Cys Lys Leu Ser Leu Glu Gly Asp His Ser Thr Pro Pro Ser Ala Tyr  
 20 25 30

Gly Ser Val Lys Ala Tyr Thr Asn Phe Asp Ala Glu Arg Asp Ala Leu  
 35 40 45

Asn Ile Glu Thr Ala Ile Lys Thr Lys Glu Ala Val Asp Glu Val Thr  
 50 55 60

Ile Val Asn Ile Leu Thr Asn Arg Ser Asn Ala Gln Arg Gln Asp Ile  
 65 70 75 80

Ala Phe Ala Tyr Gln Arg Arg Thr Lys Lys Glu Leu Ala Ser Ala Leu  
 85 90 95

Lys Ser Ala Leu Ser Gly His Leu Glu Thr Val Ile Leu Gly Leu Leu  
 100 105 110

Lys Thr Pro Ala Gln Tyr Asp Ala Ser  
 115 120

<210> 228  
 <211> 71  
 <212> PRT  
 <213> Homo sapien

298

&lt;400&gt; 228

Asn Ser His Gln Asp Gln Arg Gly Val Asp Glu Val Thr Ile Val Asn  
 1 5 10 15

Ile Leu Thr Asn Arg Ser Asn Ala Gln Arg Gln Asp Ile Ala Phe Ala  
 20 25 30

Tyr Gln Arg Arg Thr Lys Lys Glu Leu Ala Ser Ala Leu Lys Ser Ala  
 35 40 45

Leu Ser Gly His Leu Glu Thr Val Ile Leu Gly Leu Leu Lys Thr Pro  
 50 55 60

Ala Gln Tyr Asp Ala Ser Glu  
 65 70

&lt;210&gt; 229

&lt;211&gt; 242

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 229

Met Leu Glu Arg Arg Ser Val Met Asp Val Val Ala Ala Glu Gly Arg  
 1 5 10 15

Ser Gln Leu Ser Ala His Gly Pro Ala Ser Phe Lys Met Ser Thr Val  
 20 25 30

His Glu Ile Leu Cys Lys Leu Ser Leu Glu Gly Asp His Ser Thr Pro  
 35 40 45

Pro Ser Ala Tyr Gly Ser Val Lys Ala Tyr Thr Asn Phe Asp Ala Glu  
 50 55 60

Arg Asp Ala Leu Asn Ile Glu Thr Ala Ile Lys Thr Lys Gly Val Asp  
 65 70 75 80

Glu Val Thr Ile Val Asn Ile Leu Thr Asn Arg Ser Asn Ala Gln Arg  
 85 90 95

Gln Asp Ile Ala Phe Ala Tyr Gln Arg Arg Thr Lys Lys Glu Leu Ala  
 100 105 110

Ser Ala Leu Lys Ser Ala Leu Ser Gly His Leu Glu Thr Val Ile Leu  
 115 120 125

299

Gly Leu Leu Lys Thr Pro Ala Gln Tyr Asp Ala Ser Glu Leu Cys Ser  
 130 135 140

Arg Thr Asn Gln Glu Leu Gln Glu Ile Asn Arg Val Tyr Lys Glu Met  
 145 150 155 160

Tyr Lys Thr Asp Leu Glu Lys Asp Ile Ile Ser Asp Thr Ser Gly Asp  
 165 170 175

Phe Arg Lys Leu Met Val Ala Leu Ala Lys Gly Arg Arg Ala Glu Asp  
 180 185 190

Gly Ser Val Ile Asp Tyr Glu Leu Ile Asp Gln Asp Ala Arg Asp Leu  
 195 200 205

Tyr Asp Ala Gly Val Lys Arg Val Lys Arg Lys Gly Thr Asp Val Pro  
 210 215 220

Lys Trp Ile Ser Ile Met Thr Glu Arg Ser Val Ala Pro Pro Pro Glu  
 225 230 235 240

Ser Ile

<210> 230  
 <211> 342  
 <212> PRT  
 <213> Homo sapien

<400> 230

Trp Ile Val Val Ala Ala Glu Gly Arg Ser Gln Leu Ser Ala His Gly  
 1 5 10 15

Pro Ala Ser Phe Lys Met Ser Thr Val His Glu Ile Leu Cys Lys Leu  
 20 25 30

Ser Leu Glu Gly Asp His Ser Thr Pro Pro Ser Ala Tyr Gly Ser Val  
 35 40 45

Lys Ala Tyr Thr Asn Phe Asp Ala Glu Arg Asp Ala Leu Asn Ile Glu  
 50 55 60

Thr Ala Ile Lys Thr Lys Gly Val Asp Glu Val Thr Ile Val Asn Ile  
 65 70 75 80

Leu Thr Asn Arg Ser Asn Ala Gln Arg Gln Asp Ile Ala Phe Ala Tyr

300																
85							90					95				
Gln	Arg	Arg	Thr	Lys	Lys	Glu	Leu	Ala	Ser	Ala	Leu	Lys	Ser	Ala	Leu	
			100					105					110			
Ser	Gly	His	Leu	Glu	Thr	Val	Ile	Leu	Gly	Leu	Leu	Lys	Thr	Pro	Ala	
		115					120					125				
Gln	Tyr	Asp	Ala	Ser	Glu	Leu	Cys	Ser	Arg	Thr	Asn	Gln	Glu	Leu	Gln	
	130					135					140					
Glu	Ile	Asn	Arg	Val	Tyr	Lys	Glu	Met	Tyr	Lys	Thr	Asp	Leu	Glu	Lys	
145					150					155					160	
Asp	Ile	Ile	Ser	Asp	Thr	Ser	Gly	Asp	Phe	Arg	Lys	Leu	Met	Val	Ala	
				165					170					175		
Leu	Ala	Lys	Gly	Arg	Arg	Ala	Glu	Asp	Gly	Ser	Val	Ile	Asp	Tyr	Glu	
			180					185					190			
Leu	Ile	Asp	Gln	Asp	Ala	Arg	Asp	Leu	Tyr	Asp	Ala	Gly	Val	Lys	Arg	
		195					200					205				
Lys	Gly	Thr	Asp	Val	Pro	Lys	Trp	Ile	Ser	Ile	Met	Thr	Glu	Arg	Ser	
	210					215					220					
Val	Pro	His	Leu	Gln	Lys	Val	Phe	Asp	Arg	Tyr	Lys	Ser	Tyr	Ser	Pro	
225					230					235					240	
Tyr	Asp	Met	Leu	Glu	Ser	Ile	Arg	Lys	Glu	Val	Lys	Gly	Asp	Leu	Glu	
				245					250					255		
Asn	Ala	Phe	Leu	Asn	Leu	Val	Gln	Cys	Ile	Gln	Asn	Lys	Pro	Leu	Tyr	
			260					265					270			
Phe	Ala	Asp	Arg	Leu	Tyr	Asp	Ser	Met	Lys	Gly	Lys	Gly	Thr	Arg	Asp	
		275					280					285				
Lys	Val	Leu	Ile	Arg	Ile	Met	Val	Ser	Arg	Ser	Glu	Val	Asp	Met	Leu	
	290					295					300					
Lys	Ile	Arg	Ser	Glu	Phe	Lys	Arg	Lys	Tyr	Gly	Lys	Ser	Leu	Tyr	Tyr	
305					310					315					320	
Tyr	Ile	Gln	Gln	Asp	Thr	Lys	Gly	Asp	Tyr	Gln	Lys	Ala	Leu	Leu	Tyr	
				325					330						335	



301

Leu Cys Gly Gly Asp Asp  
340

<210> 231  
<211> 72  
<212> PRT  
<213> Homo sapien

<400> 231

Pro Arg Pro Leu Leu Ala Arg Arg Tyr Leu Cys Arg Val Thr Ser Cys  
1 5 10 15

Phe Leu Ser Leu Ser Arg Ala Val Trp Trp Gln Gln Ala Gln Pro Gln  
20 25 30

Ala Gln Ala Gln Pro Arg Asn Ala Glu Arg Arg Arg Arg Val Arg Gly  
35 40 45

Pro Val Arg Ala Ala Glu Met Arg Pro Leu Ala Ile Ala Ser Ser Val  
50 55 60

Pro Arg Thr Thr His Pro Ser Arg  
65 70

<210> 232  
<211> 103  
<212> PRT  
<213> Homo sapien

<400> 232

Leu Leu Pro Phe Ser Leu Ala Arg Gly Val Val Ala Ala Gly Ala Ala  
1 5 10 15

Gly Ala Pro Ser Leu Glu Met Gln Asn Asp Ala Gly Glu Phe Val Asp  
20 25 30

Leu Tyr Val Pro Arg Lys Cys Ser Ala Ser Asn Arg Ile Ile Gly Ala  
35 40 45

Lys Asp His Ala Ser Ile Gln Met Asn Val Ala Glu Val Asp Lys Val  
50 55 60

Thr Gly Arg Phe Asn Gly Gln Phe Lys Thr Tyr Ala Ile Cys Gly Ala  
65 70 75 80

Ile Arg Arg Met Gly Glu Ser Asp Asp Ser Ile Leu Arg Leu Ala Lys

302

85

90

95

Ala Asp Gly Ile Val Ser Lys  
100

&lt;210&gt; 233

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 233

Leu Leu Pro Phe Ser Leu Ala Arg Gly Val Val Ala Ala Gly Ala Ala  
1 5 10 15

Gly Ala Pro Ser Leu Glu Met Gln Asn Asp Ala Gly Glu Phe Val Asp  
20 25 30

Leu Tyr Val Pro Arg Lys Cys Ser Ala Ser Asn Arg Ile Ile Gly Ala  
35 40 45

Lys Asp His Ala Ser Ile Gln Met Asn Val Ala Glu Val Asp Lys Val  
50 55 60

Thr Gly Arg Phe Asn Gly Gln Phe Lys Thr Tyr Ala Ile Cys Gly Ala  
65 70 75 80

Ile Arg Arg Met Val Ser Val Ser Leu Gly Phe Ala His His Phe Gly  
85 90 95

Thr Ser Trp Thr Leu Pro Cys Ala Leu Glu Cys Val Met Val Pro Glu  
100 105 110

&lt;210&gt; 234

&lt;211&gt; 87

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 234

Ala Arg Gly Ile Ala Arg Gly Val Val Ala Ala Gly Ala Ala Gly Ala  
1 5 10 15

Gly Pro Ala Ser Lys Cys Arg Thr Thr Pro Ala Ser Ser Trp Thr Cys  
20 25 30

Thr Cys Arg Gly Asn Ala Ser Ala Ser Asn Arg Ile Ile Gly Ala Lys  
35 40 45

303

Asp His Ala Ser Ile Gln Met Asn Val Ala Glu Val Ser Trp Glu Pro  
 50 55 60

Gly Arg Arg Glu Gly Cys Asp Ile Cys Ala Gly Lys Ala Gly Cys Pro  
 65 70 75 80

Ile Val Glu Glu Pro Leu Gly  
 85

<210> 235  
 <211> 86  
 <212> PRT  
 <213> Homo sapien

<400> 235

Ala Arg Gly Ile Ala Arg Gly Val Val Ala Ala Gly Ala Ala Gly Ala  
 1 5 10 15

Pro Ser Leu Glu Met Gln Asn Asp Ala Gly Glu Phe Val Asp Leu Tyr  
 20 25 30

Val Pro Arg Lys Cys Ser Ala Ser Asn Arg Ile Ile Gly Ala Lys Asp  
 35 40 45

His Ala Ser Ile Gln Met Asn Val Ala Glu Val Ser Trp Glu Pro Gly  
 50 55 60

Arg Arg Glu Gly Cys Asp Ile Cys Ala Gly Lys Ala Gly Cys Pro Ile  
 65 70 75 80

Val Glu Glu Pro Leu Gly  
 85

<210> 236  
 <211> 77  
 <212> PRT  
 <213> Homo sapien

<400> 236

Met Arg Gly Arg Gly Arg Gly Thr Cys Arg Gly Asn Ala Ser Ala Ser  
 1 5 10 15

Asn Arg Ile Ile Gly Ala Lys Asp His Ala Ser Ile Gln Met Asn Val  
 20 25 30

Ala Glu Val Asp Lys Val Thr Gly Arg Phe Asn Gly Gln Phe Lys Thr  
 35 40 45

304

Tyr Ala Ile Cys Gly Ala Ile Arg Arg Met Gly Glu Ser Asp Asp Ser  
 50 55 60

Ile Leu Arg Leu Ala Lys Ala Asp Gly Ile Val Ser Lys  
 65 70 75

<210> 237  
 <211> 86  
 <212> PRT  
 <213> Homo sapien

<400> 237

Ile Met Pro Ser Gly Ala Ser Val Met Asp Ala Trp Ser Arg Pro Arg  
 1 5 10 15

Tyr Val Pro Arg Lys Cys Ser Ala Ser Asn Arg Ile Ile Gly Ala Lys  
 20 25 30

Asp His Ala Ser Ile Gln Met Asn Val Ala Glu Val Asp Lys Val Thr  
 35 40 45

Gly Arg Phe Asn Gly Gln Phe Lys Thr Tyr Ala Ile Cys Gly Ala Ile  
 50 55 60

Arg Arg Met Gly Glu Ser Asp Asp Ser Ile Leu Arg Leu Ala Lys Ala  
 65 70 75 80

Asp Gly Ile Val Ser Lys  
 85

<210> 238  
 <211> 21  
 <212> DNA  
 <213> Artificial sequence

<220>  
 <223> Synthetic

<400> 238  
 tacgcagagc tcacgctcct t

21

<210> 239  
 <211> 22  
 <212> DNA  
 <213> Artificial sequence

<220>  
 <223> Synthetic

<400> 239

305

acaaccacga agagccagtc tt

22

&lt;210&gt; 240

&lt;211&gt; 28

&lt;212&gt; DNA

&lt;213&gt; Artificial sequence

&lt;220&gt;

&lt;223&gt; Synthetic

&lt;400&gt; 240

tggctgagct cttacctggt tttcaggc

28